

ALAMEDA COUNTY FIRE PROTECTION MASTER PLAN

FINAL REPORT


JANUARY, 1992

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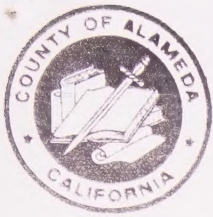
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C O U N T Y A D M I N I S T R A T O R

STEVEN C. SZALAY
COUNTY ADMINISTRATOR

February 6, 1992

SUSAN S. MURANISHI
ASSISTANT COUNTY ADMINISTRATOR

Honorable Board of Supervisors
Administration Building
Oakland, CA 94612

Dear Board Members:

Subject: Fire Service Organizational Study for Unincorporated
 Alameda County - Final Report and Recommendations

RECOMMENDATION:

In an effort to eliminate the currently complex, fragmented, and duplicative system of fire services and improve the overall level of fire protection to the residents of unincorporated Alameda County, it is respectfully recommended that your Board:

1. Accept the Final Report and Recommendations of the Fire Service Organizational Study for Unincorporated Alameda County;
2. Approve, in principle, the **organizational recommendation**, Alternative 3C, which recommends the creation of a single Alameda County Fire District through the consolidation of the four County fire agencies currently serving the unincorporated areas: Eden Fire, Castro Valley Fire, and County Fire Patrol; **with the following modifications** a) that an ad hoc advisory committee, under the direction of Supervisor Campbell, be formed to provide specific guidance and recommendations on the question of what type of organizational/contractual relationship best meets Alameda County's overall fire protection obligations in the eastern and Sunol portions of the County, and b) that the O.E.S. volunteer unit will remain under the Sheriff's Department with guidelines developed that provide for mutual cooperation and assistance with the new fire district; and that, within a year after consolidation is complete, a determination made as to the feasibility of bringing the O.E.S unit under the auspices of the new consolidated fire district;

3. Approve the Final Report's **program and operational recommendations** and refer the Report to the County Administrator's Office with authorization to proceed, in cooperation with the Fire Districts, Sheriff's Department, and other affected County Departments, with further detailed analysis and development of specific systematic implementation plans and activities, including personnel and staffing, organizational changes, cost and budget analysis, time frames, service levels, legal issues, as well as:
 - The identification and adoption of service level standards for fire protection, first responder emergency medical services and hazardous materials controls;
 - The development of recommended risk mitigation programs which limit fire and hazardous materials risks and control the costs of providing protection through built-in fire protection systems, fire resistive construction, code enforcement and safety education for citizens with an emphasis on "self-help" programs in the rural areas;
 - The development of a recommended one-stop development review process and participation by the newly created consolidated fire district;
 - The development of recommended permit fees, cost recovery user service fees, hazardous material control fees and citation fines for noncompliance with the Fire Code in order to fully offset new program operational expenses;
 - That implementation will result in no additional net County cost and every effort will be made to maintain the new consolidated district budget within current appropriation and revenue limits, consistent with budget policies and priorities as may be established by your Board; and,
4. Direct that the County Administrator provide informational status and progress reports to the Board of Supervisors at the April and June, 1992 Board/CAO Worksessions and provide additional reports on a quarterly basis thereafter.

DISCUSSION AND FINDINGS:

This Report was prepared by Bob Burns of Fire Loss Management Systems in cooperation with a County Management/Planning Team consisting of representatives of the various fire jurisdictions, labor, Public Works Agency, Planning Department, Sheriffs Department and my office. The study was initiated by your Board in August 1990 for the purpose of seeking to improve the efficiency and effectiveness of fire protection services in the unincorporated areas of Alameda County.

A public work session was held on December 9, 1991, to allow the consultant to present a detailed overview of the Report, its Findings and Recommendations to each of the governing bodies as well as interested community groups and the press. In response to the questions and concerns raised at that meeting and in subsequent discussions with those expressing an interest, the consultant made a number of revisions and clarifications to the Final Report. The Final Report also includes a response from Bob Burns to questions and concerns raised by Board and Commission members and the public as a result of their review of the Draft Report. As indicated, the Final Report has been revised and a number of substantive revisions and clarifications made with respect to the alternatives and recommendations presented.

In approving, in principle, the modified organizational Alternative 3C, you will be indicating your intent that ultimately all the fire service operations in the unincorporated County should be under one administrative unit. It will remove the complex fragmented system currently in place where fire responsibilities are shared among the Sheriff, two Fire District, Public Works, and my office; and bring into being a more coordinated, unified, and functional operating department.

The County Fire Patrol would continue, pending the recommendations of Supervisor Campbell's ad hoc committee, its current organizational status. However, all administrative, budgetary and support services would be removed from the Sheriff and brought under the organizational umbrella of the new consolidated district. The Sheriff has indicated that the O.E.S volunteers are an integral part of the mutual aid response system in Alameda County and are a valuable nucleus of trained and equipped fire fighting personnel that can respond to a variety of situations, including mutual aid fire requests, search and rescue, and underwater recovery. The Final Report recognizes the role of the volunteers and recommends the O.E.S. volunteer force be maintained as a viable and integral part of any new fire district.

After discussing the unique role of the O.E.S. fire volunteer unit with the Sheriff, there was agreement that your Board should proceed with the approval, in principle, of County fire service consolidation; however, the O.E.S. volunteer unit would remain under the Sheriff's Department with guidelines developed that provide for mutual cooperation and assistance with the new fire district. It was also agreed that, within a year after consolidation is complete, my office and the Sheriff would make an evaluation as to the feasibility of bringing the O.E.S unit under the auspices of the new consolidated fire district.

In approving the program and operational recommendations, your Board is not making any decision nor committing the County to any certain financial course with respect to user fees, assessments, or the like. As part of the implementation analysis by my office, a critical evaluation of the use and amount of any such fees or charges will be made and recommendations developed for future consideration by your Board. It is my intent that there be no net cost to the County as a result of implementing the recommendations contained in this Final Report and that there be full public discussion and input with respect to the question of fees or assessments.

The focus and purpose of the study was to look at how the County is currently meeting its obligations for providing fire protection services to the unincorporated areas and to recommend alternatives which could improve efficiency and effectiveness. In the opinion of the consultant, the County is **not** currently meeting the "recommended service level standards" in a number of areas. The Final Report discusses a number of alternatives under which the County could be brought into compliance, including maintaining the current organizational and administrative structure.

As indicated in the Report's Executive Summary, the study was commenced without preconceptions about consolidation of the various fire services. Organizational options such as functional consolidation of various support services were considered. Although some automatic aid agreements currently exist, the functional consolidation of programs such as training, fire prevention, public education, and data systems management would not be effective due to differing management approaches to these programs. While duplication of effort, especially at the support services level, is occurring, it does not appear that effective programs with reduced duplication will occur without organizational consolidation under one management structure. For these reasons the Final Report recommends that a county-wide fire protection district be organized to serve the unincorporated areas of Alameda County, Alternative 3C.

The intent to the program and organizational recommendations contained in the Final Report are to bring the County into compliance with established standard fire service levels and to fund the attainment of those standards by the newly created consolidated district from within existing revenue sources. Some increases in personnel, capital facilities, and equipment replacement are recommended. The estimated approximate cost increase associated with Alternative 3C is \$1.0 million per year. It is anticipated that when the operating budgets of all the existing districts are consolidated, the increased efficiencies will provide most, if not all, of the funds needed to implement the new district. Certain new added user fees are recommended regardless of the current available funding. These fees are primarily permit fees and cost recovery service fees which are defined in the Fire Code. Additional service cost recovery fees would include hazardous material control fees and citation fines for non-compliance with the Fire Code. As indicated, **it is my intent that there will be no net cost to the County as a result of implementing the recommendations contained in this Final Report.**

It was the consensus of the Management/Planning Team as well as the consultant that the ultimate consolidation of all related County fire service activities under one organizational structure was in the best interests of the County and that such a consolidation would improve coordination and overall fire service delivery within the unincorporated areas of Alameda County.

FINANCING:

The fire districts are not currently funded through the County General Fund. They receive revenue from a variety of sources including Property Taxes, Special District Augmentation Funds, Fees, and Charges for Services. Alternative 3C estimates an additional appropriation requirement of approximately \$1.0 million per year in order to bring the County into compliance with the recommended service level standards. Additionally, the County also has the option of postponing the implementation of a number of the cost recommendations if it is found that funding is not readily available without affecting the creation or integrity of a new consolidated district.

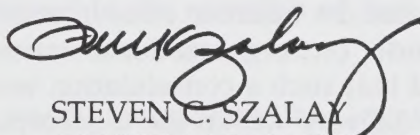
The Final Report recommends a range of potential **financing** mechanisms that your Board may want to consider in evaluating how best to bridge any financing gap. During the implementation analysis by my office, a thorough evaluation will be made of the existing appropriation and revenue

assumptions made by each fire district as well as a number of other budgetary strategies. As the information is refined and specific implementation strategies developed, financing alternatives can become more focused, and specific recommendations developed for consideration by your Board.

CONCLUSION:

The reorganization of the existing County fire protection system into a single consolidated unit will eliminate the currently complex, fragmented, and duplicative system of fire services and enable Alameda County to better meet the current and future service demands for fire protection, fire prevention, first responder emergency medical services and hazardous materials controls throughout all the unincorporated areas.

Very truly yours,



STEVEN C. SZALAY
COUNTY ADMINISTRATOR

Attachment

SCS:DG:dg

cc: Eden Fire District Commissioners
Castro Valley District Commissioners
Each Member, Fire Study Management/Planning Committee
Interested Citizen Groups and Associations
Sheriff
Director, Public Works
Planning Director
County Counsel
Auditor-Controller
Director, Personnel and Labor Relations
Each City Manager

GG:0023.DKG

FLMS

Fire Loss Management Systems

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January 27, 1992

TO: Each Member, Board of Supervisors
Each Member, Eden Fire Commission
Each Member, Castro Valley Fire Commission
Each Member, Fire Study Management/Planning Team
Interested Parties

FROM: Bob Burns, Fire Loss Management Systems

SUBJECT: Revisions to the Fire Service Master Plan Final Report and Responses to Questions and Inquiries.

As a result of the issues and questions raised by the Board and Commission Members as well as concerned citizens at the December 9, 1991 work session, a number of substantive revisions and clarifications have been made to the Final Report. The following attempts to address those questions and concerns.

1. **Question:** In addition to the three alternatives indicated in the Report, shouldn't a fourth alternative have been included which addresses the option of leaving the County Fire Patrol as a separate agency?

Answer:

The Final Report has been revised to include an additional alternative (#4) which addresses this option.

The new alternative now indicates that the CFP would remain as a separate community services district with the administration of the district transferred from the Sheriff to the chief of the new consolidated fire district.

Under this reorganization the administrative services provided by the new consolidated district would include: organizational structure and management; budget preparation and administration; personnel services (employment, compensation and promotional program); data and record system support; clerical support; vehicle maintenance and replacement; and facilities design and maintenance. It is estimated that this would require one deputy chief and one clerical position to each spend one half time to provide these services.

The resources estimated to operate the CFP district include:

- A chief officer at the rank and compensation of deputy chief (per the consolidated district).
- Sufficient personnel to provide a first engine response and a full alarm assignment which would meet recommended standards and is consistent with the other fire protection agencies in the area, (i.e.: three engines and a battalion chief - 10 personnel).

This staffing would also make it possible for CFP to enter into automatic aid agreements with other agencies such as Livermore and Pleasanton. If CFP does not have enough resources to at least provide a full alarm assignment, Livermore and Pleasanton can be expected to take the position that they are providing basic services for the CFP area which is beyond the scope of automatic aid agreements and therefore will continue to refuse to enter into automatic aid agreements.

- A training officer and fire prevention officer would be added to the CFP to provide the training, fire safety education and fire prevention services required in the CFP area.
- The estimated total annual cost of this new alternative is \$18,728,258: Salaries and Benefits \$11,743,850; Services and Supplies \$6,083,620; Fixed Assets \$1,755,500. This represents an increase over the current annual costs of approximately \$3,139,558.

2. **Question: Are the response standards for the various fire protection agencies in the report accurate?**

Answer:

The draft report initially recommended that a full first alarm assignment consist of twelve personnel. This was questioned and I was asked to identify the current practices by the districts and neighboring agencies. The standard responses for a single family dwelling structure fire consists of:

- | | |
|---------------------|-----------------------------|
| - Eden Consolidated | - 13 personnel |
| - Castro Valley FPD | - 10 personnel |
| - CFP | - 3 to 4 personnel |
| - Fairview | - 3 career and 7 volunteers |
| - Hayward | - 10 personnel |
| - Livermore | - 10 personnel |
| - Pleasanton | - 10 personnel |

The average response of resources to a structure fire consists of three fire apparatus with three personnel each and one battalion chief for a total of 10 personnel. The responses may be increased if the occupancy has a higher risk than a single family dwelling or if the incident is reported as a significant fire with flames showing.

With this information the recommended standard in the Final Report has been changed to 10 personnel. Also the first unit response to a fire in sprinklered buildings has been increased to 10 minutes to reflect the decreased need for resources in sprinklered buildings.

3. **Question:** Why were such options as contracting for certain current fire services performed by Eden and Castro Valley not explored in the Report?

Answer:

In an effort to be as responsive as possible to this question raised by Fire Chief Mike Bradley of Hayward, he was contacted so that the issue could be explored in greater detail. The Final Report continues to recommend that the boundaries of the current districts be maintained in order to obtain the economies of scale which the consolidation can produce. The fire districts are providing emergency response services to these areas which meet the recommended standards. Contracting for the areas (CVFPD area south of the freeway and San Lorenzo areas adjacent to Hayward) would decrease needed revenues available to the proposed consolidated fire district.

Chief Bradley also expressed a desire to implement automatic aid agreements with both ECFPD and CVFPD in certain areas adjacent to Hayward. Previous attempts to implement automatic aid programs have not been successful. Benefits are available to both Hayward and the fire district through automatic aid programs. These automatic aid programs may be of particular importance with relation to the relocation of the two Eden fire stations. A county-wide automatic aid (boundary drop) program is one of the recommendations of the Final Report.

After reviewing the draft report, the City of Pleasanton also expressed an interest in reevaluating their current contract for services with the County to include certain areas within the Pleasanton sphere of influence which are currently protected by the County Fire Patrol. Pleasanton claims to be responding to certain areas within their sphere of influence and to have the ability to respond to those areas quicker than other agencies. Therefore, the Final Report has been modified by making reference evaluating contracts with Livermore and Pleasanton where contractual services in the County Fire Patrol area are proposed.

4. **Question:** What are the specific financial and budgetary implications?

Answer:

The focus and purpose of this study was to look at how Alameda County is currently meeting its obligations for providing fire protection and to recommend alternatives which could improve efficiency and effectiveness. The report concludes that the County is not currently meeting "recommended service level standards" in a number of areas. A number of alternatives are recommended under which Alameda County can be brought into compliance with these "recommended service level standards", including maintaining the current organizational and administrative structures. However, regardless of which alternative is selected by the Board of Supervisors, an increase to current appropriation levels will be required. The conclusion with respect to Alternative 3C, which calls for consolidation of all existing fire services into one new district, is that this alternative not only makes sense from an organizational and management perspective, but that it is preferable because it can be accomplished with a minimum of additional appropriations. For example, the data indicates that to upgrade the current organizational structure to meet the required standards would add approximately \$2.4 million to the current total fire service appropriation amount. The estimated additional appropriations associated with the various other alternatives range from a low of \$0.8 million to a high of \$3.1 million.

From a County budget perspective, if one were to combine the existing budgets of Eden, Castro Valley, Fire Patrol, etc., total appropriations would need to increase by approximately \$2.3 million. However, it must be remembered that this projection of an estimated financing gap is without consideration to the revenue side of the budget equation. To determine the amount of the actual gap, if any, involves a detailed review of all aspects of the various fire budgets (salaries, benefits, service and supply, fixed assets, property taxes, Special District Augmentation funding, other revenues, etc.) as a single combined entity.

Since fire districts are non-general fund budgets and have no net County cost, the Final Report estimates that if the existing revenue sources (property taxes, Special District Augmentation funds, fees, etc.) are maintained at the 1991-92 level, it will require an estimated \$0.7 million to \$3.1 million to keep the budget in balance. The Final Report recommends a range of potential financing mechanisms that the Board of Supervisors may want to consider in evaluating how to bridge any remaining financing gap. A budgetary assumption is made that the Board of Supervisors' existing budgetary policies with respect to the distribution of current revenues will remain the same under a consolidated district format. This report looked at the potential cost impacts.

The separate question of how best to finance any additional costs is recommended to be addressed during the implementation phase.

The implementation step, recommended to be conducted by the County Administrator, involves evaluating what budget balancing methods and approaches would be most appropriate and consistent with the Alameda County's overall fiscal and program priorities. The initial starting point of this analysis should be to look at the combined existing revenues (Property taxes, Special District Augmentation fund, etc.) of the various Fire Districts and the development of a projection as to how they may rise or fall in subsequent years. If the combined existing revenue projections are sufficient to cover salary and other operating expenses plus the additional \$2.3 million, for example, the Unmet Need gap is closed and the budget is balanced without having to evaluate the need for additional fees or assessments. There are a number of other budgetary strategies that will need to be explored as well as part of this analysis. The report strongly recommends that at this time one should not be excluding consideration of certain financing options (benefit assessments, development fees, and user fees) but rather everything should be kept on the table for discussion and evaluation during the implementation phase. Then, as the information is refined, financing alternatives can become more focused and specific recommendations developed for policy consideration by the Board of Supervisors.

Certain new fees are recommended regardless of existing revenue sources within the individual fire districts. These fees are primarily permit fees and cost recovery service fees which are defined in the fire code. Additional service cost recovery fees would include hazardous material control fees and citation fees for noncompliance with the fire code. The following programs are being recommended for implementation to supplement existing funding sources.

- The permit fee system in the Uniform Fire Code should be fully implemented.
- An fire code inspection fee system should be developed and implemented.
- A citation and fine system should be developed and implemented to fund the costs of code enforcement when significant non-compliance occurs.
- The hazardous materials inspection and permit fees should be assumed and modified to fully fund Haz Mat code enforcement and information dissemination.
- Weed abatement and foliage removal programs should be funded by fees.

Summary of Proposed Alternative Organizational Costs

SYSTEM	SALARIES & BENEFITS	SERVICE & SUPPLIES	FIXED ASSET	TOTAL
CURRENT	\$11,283,195	\$2,864,114	\$1,328,130	\$15,588,700
CURRENT MODIFIED	\$11,701,350	\$5,197,700	\$994,300	\$17,892,350
ALT. #1	\$11,580,240	\$4,948,210	\$953,600	\$17,482,050
ALT. #2	\$10,980,240	\$5,503,091	\$868,600	\$16,484,200
ALT. #3A	\$10,693,905	\$5,042,015	\$847,500	\$16,583,420
ALT. #3B	\$10,201,450	\$5,337,510	\$847,500	\$16,386,460
ALT. #3C	\$10,423,950	\$5,337,510	\$847,500	\$16,608,960
ALT. #3D	\$10,868,950	\$5,337,510	\$847,500	\$17,053,958
ALT. #4	\$11,743,850	\$6,083,620	\$1,755,500	\$18,728,258

Comparative Cost Increases by Alternative

The estimated additional annual cost for each alternative as compared with the current costs are:

CURRENT	\$ N/A
CURRENT	
MODIFIED	\$2,393,650 +
ALT. #1	\$1,893,350 +
ALT. #2	\$ 895,500 +
ALT. #3A	\$ 994,720 +
ALT. #3B	\$ 797,760 +
ALT. #3C	\$1,020,260 +
ALT. #3D	\$1,465,258 +
ALT. #4	\$3,139,558 +

5. **Clarify the reference to the relocation of Eden Consolidated Fire Protection District's stations 1 and 3.**

Answer:

The relocation and reconstruction of ECFPD stations 1 and 3 has been specified as part of the Report's facilities fixed asset requirements.

6. **Question: How does the Veterans' Hospital fit into what is being recommended?**

Answer:

There is a veterans' hospital in the unincorporated area south of the City of Livermore. A fire department is maintained at the facility. The hospital fire department has one fire engine. In the event of a fire, Livermore Fire Department provides one engine, one truck and one battalion chief under an automatic aid agreement. Livermore has stated that the proposed consolidated or contract as outlined in this master plan would not affect the program with the hospital.

7. **Question: Is there a need for a recommendation that addresses responses to major or multiple incidents?**

Answer:

Automatic Aid/Boundary Drop Program:

The expanded use of automatic aid is recommended in the Final Report. Such a program would significantly improve routine operations of all cities districts and would especially improve the efficiency and effectiveness of operations during major or multiple incidents.

Consolidated Communications/Dispatch for Fire Agencies:

A recommendation has been added which proposes that consolidated dispatch centers be developed in the county to improve fire departments' abilities to cope with major or multiple incidents. It is proposed that city and county agencies join in the joint operation of these dispatch centers dedicated exclusively to fire department operations.

ALTERNATIVE RESOURCE LEVELS FOR CONSOLIDATED FIRE DISTRICT
STATIONS, FIRST LINE APPARATUS AND PERSONNEL

TITLE	CURRENT SYSTEM	ALT. 1	ALT. 2	ALT. 3A	ALT. 3B	ALT. 3C	ALT. 3D	ALT. 4
STATIONS	9	10	9	8	8	8	8	11
ENGINE	13	15	13	12	12	12	13	15
TRUCK	1	1	1	1	1	1	1	1
SQUAD	3	3	3	2	2	2	2	3
PATROL	6	7	6	4	4	4	4	6
WATER TENDER	1	1	1	1	1	1	1	1
TOTAL	24	27	24	20	20	20	21	26
FIRE CHIEF	4	1	1	1	1	1	1	1
DEPUTY CHIEF	2	2	2	2	2	2	2	3.5
ASST. CHIEF (VOL)	1	2	2	2	2	2	2	2
BATTALION CHIEF	7.2	6.2	6.2	6	6.2	6.2	6.2	6.2
TRAINING OFFICER	1	2	2	2	2	3	2	3
FIRE MARSHAL	0	1	1	1	1	1	1	1
DEP. FIRE MARSHAL	3	4	4	6	6	7	6	7
CAPTAIN	33	36	33	30	30	30	33	39
CAPTAIN (VOL)	2	2	2	2	2	2	2	2
LIEUTENANT (VOL)	3	3	3	3	3	3	3	3
ENGINEER	33	39	36	33	33	33	36	39
FIREFGHTR	57	55	52	48	48	51	54	63
FIREFIGHTER (VOL)	27	48	27	27	27	27	27	27
CLERICAL	2.25	3.25	2.25	2	2.25	2.25	2.25	2.75
TOTAL	175.45	204.45	173.45	165	165.45	170.45	177.45	199.45

* May increase by two due to reclassification of fire chiefs.

The current system excludes the Fairview Fire District personnel;
however if their personnel were added, the total would be 204.45

8. **Question:** What are specific recommendations with respect to the provision of fire service in the in the Sunol area?

Answer:

Staffing of Sunol station:

The Final Report recommends that the staffing level of the Sunol station be **increased** by adding one captain position. This would result in the maintenance of a **three** person staffing at the station. This would provide a minimum three person response on all incidents in order to meet the recommended minimum service level standard. This would require a revision of the current contract with CDF to add three additional CDF fire captains.

Volunteer Company at Sunol:

Due to the inherent problems associated with recruitment, retention and use of volunteers, the Final Report recommends that additional study and evaluation be conducted with respect to the feasibility of forming a volunteer company for the Sunol area.

9. **Question:** Shouldn't this Report follow consideration of the County's General Plan amendment rather than preceed it?

Answer:

It is recommended that the service level standards for fire protection be developed and adopted by the county prior to revising the General Plan. The revised General Plan should include service level standards for fire protection, emergency medical service and hazardous material incident controls provided by the fire districts. Mitigation measures which control risks and service delivery costs should also be an integral part of the General Plan. The service level standards and related resource requirements should be used to develop the fire protection portion of the Safety Element of the General Plan.

The land use, transportation and demographic data which will be used in revising the General Plan should be provided to the district to assist in maintaining and updating this fire protection plan. We have coordinated with the Planning Department during the preparation of this plan to obtain the most current data available during this project in order to evaluate future growth and the impact upon fire protection.

10. **Question:** The report recommends that a benefit assessment district be formed. How much will this cost taxpayers? Most specifically, what is the estimated costs for each homeowner in San Lorenzo? How much does each homeowner in San Lorenzo currently pay for fire protection services?

The Final Report does not specifically recommend the formation of a benefit assessment district and the Final Report has been revised to clarify this point.

The recommendation simply recognizes that one potential revenue source that Alameda County may want to evaluate in conjunction with other financing alternatives is the formation of a benefit assessment district. However, recognizing that the exact amount of any additional revenue that may be needed can not be determined at this early juncture, if hypothetically the amount is \$1.0 milling and, based on a total of 39,395 parcels in the unincorporated area, the amount of the assessment would be \$25.38 per parcel per year. Therefore, depending on the number of parcels someone in San Lorenzo owned, it would cost that property owner at least \$25.38 more per year per parcel owned.

In response to how much each San Lorenzo homeowner currently pays for fire protection service, the 1991-92 appropriation amount for Eden Fire is \$6,338,150 with revenues from proceeds from taxes estimated at \$1,357,031. This excludes \$3,076,886 in AB 8 augmentation funding (SDAF) as well as the Available Fund Balance. The initial difficulty in determining a per homeowner cost is that here is no breakdown on an individual's property tax bill which indicates how much of their tax is allocated for fire services in the Eden area; it is part of the overall allocation of County property tax revenues. It is estimated that there are approximately 5,600 homes in the San Lorenzo area; this represents approximately 35% of the total Eden Fire District. Applying this percentage to the tax revenue and dividing by the estimated number of residences, an amount of \$84 per year per residence is computed.

11. **Question:** The report recommends that a new development fee program be implemented. How much will this cost? How much will this cost the residents of San Lorenzo?

Answer:

The Final Report does not specifically recommend imposition of any new or increased development fee and the report has been revised to clarify this point. As indicated in Question 10, this is one of many potential financial

alternatives that Alameda County may want to consider as it looks at the overall financial picture for a consolidated district. For this reason no parameters or details have been explored or formulated at this time. Should such options as a benefit assessment or new development fee program become a viable consideration, the specifics of any such proposal should be thoroughly discussed by the Board of Supervisors as well as reviewed with interested constituent groups prior to any formal action on such proposals being taken.

12. **Question:** The report recommends that a fire prevention fee schedule be implemented. How much will this cost? How much will this cost the residents of San Lorenzo?

Answer:

The Final Report does recommend establishing fees to cover any additional costs that may be associated with implementing a fire prevention program for the unincorporated areas of the County. However, the parameters of what type of program this would be and how extensive it would be are an implementation issue that will be addressed by a number of specific implementation work groups under the coordination of the County Administrator's Office. The County Management/Planning Team discussions regarding this issue focused on the assumption that any such fees should be on a Fee For Service basis and therefore **not** something that would be applicable to all residents. For example, the Uniform Fire Code provides for a system of permit fees and inspection fees for special hazards in commercial and industrial occupancies to recover the costs of enforcing those provisions of the code. If these fees are implemented they would be based upon an approved fee schedule. Like other implementation issues, once the program is developed, a recommended user fee schedule will be formulated for presentation to and consideration by the Board of Supervisors.

13. **Question:** The report recommends that the new consolidated fire district assume responsibility for hazardous materials code enforcement. How much will this cost the residents of San Lorenzo?

Answer:

As indicated in the response to Question 12, until the parameters of the various programs are developed as part of the implementation evaluation phase, it is impossible to estimate what the cost will be to a resident of San Lorenzo or other unincorporated areas. The Final Report does recommend that this function currently performed by Environmental Health be

transferred to the new fire district. It was the consensus of the representative to the Fire Study's Management/Planning Task Force that this function is more appropriately carried out by fire experts. It is also recommended that the existing appropriations and revenues in Environmental Health's budget be transferred to the new fire district's budget. It is anticipated that should there be need for any additional funding to cover improved enforcement activities, a user fee schedule would be formulated for those commercial and industrial occupancies which use, store or transport hazardous materials. This fee schedule would be formulated for presentation to and consideration by the Board of Supervisors.

14. **Currently there are a total of 204.45 personnel working in the various fire districts in the County. Under the recommended plan 3C there would be 170.45. Please explain exactly what happens to these 34 personnel.**

Answer:

The figure of 204.45 personnel currently working in the various fire districts in the County **includes** Fairview. Therefore, the total difference of 34 is reduced by 32 for an actual net loss of 2. These two positions are the result of the recommended reduction in the number of Chiefs from 3 to 1 under the proposed consolidated district, Alternative 3C. This reduction will be accomplished through attrition.

15. **What is the justification for the recommendation to transfer responsibility for the O.E.S. Volunteer Fire Unit from the Sheriff's Department to the new Fire District?**

Answer:

The O.E.S Volunteer Fire Unit's primary function is to serve as an auxiliary fire fighting force for Alameda County. They provide the nucleus of a trained and equipped fire fighting force that can respond to a variety of situations and which can be called upon in the event of a mutual aid request. A secondary function is that it serves as a manpower resource to the Sheriff's Department that can be called upon to provide assistance in other non-fire situations such as search and rescue and underwater recovery. The unit can also used by local law enforcement agencies in the recovery of physical evidence.

There appears to be some confusion regarding what is actually being recommended with respect to the O.E.S. Volunteer Fire Unit. First, the Final Report does **not** recommended they be disbanned or that access to their

services be limited. The Final Report simply recommends that organizationally the unit be transferred from the Sheriff's Department to the new Fire District. This is consistent with the approach and discussions of the Management/Planning Task Force which felt that the consolidation of all related County fire services under one organization would improve coordination and overall service delivery. For this reason, the Volunteer Unit as well as County Fire Patrol and Hazardous Materials are recommended to be transferred to the new Fire District.

The Final Report assumes that availability and accessability of the O.E.S. Volunteer Fire Unit to respond to mutual aid service requests from the Sheriff, as the Law Enforcement Region II Mutual Aid Coordinator, will remain unchanged. Additionally, the Unit would remain available to provide additional assistance for such non-fire situations as search and rescue and underwater recovery. The fact that the Unit will organizationally be under a different department will not compromise current service levels.

* * * * *

FIREPLAN.GG

ALAMEDA COUNTY FIRE PROTECTION MASTER PLAN

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

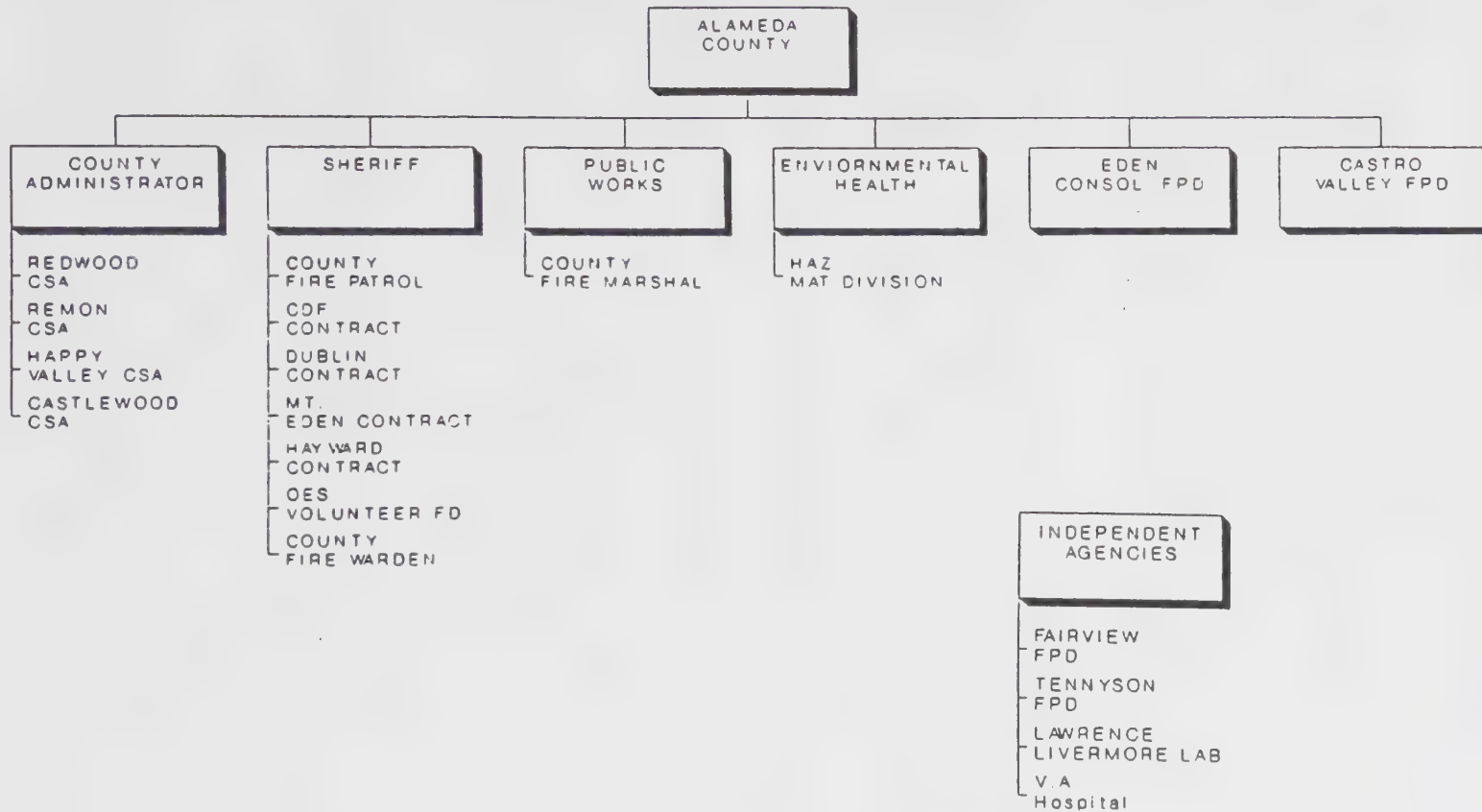
This fire protection master plan was initiated to improve the efficiency and effectiveness of fire protection services in the unincorporated areas of Alameda County.

Some of the primary recommendations which are being proposed include:

- o The formation of a consolidated Alameda County Fire District consisting of four fire agencies serving the unincorporated areas under the direct control of the Board of Supervisors.
- o The identification and adoption of service level standards for fire protection, first responder emergency medical services and hazardous materials controls. Service levels in the Eastern area of the county and in the Crow/Norris canyon areas will be improved.
- o The implementation of risk mitigation programs which limit fire and hazardous materials risks and control the costs of providing protection through built-in fire protection systems, fire resistive construction, code enforcement and safety education for citizens. Emphasis has been placed upon "self-help" programs in the rural areas which will be developed and provided by the new fire district.
- o The recommended participation in the county's one-stop development review process by the new fire district.
- o A proposal to contract with the Cities of Livermore and Pleasanton for improved emergency response services in the areas currently served by the County Fire Patrol.
- o The fire districts will continue to be funded by non-general fund budget sources (Property Taxes, Special District Augmentation Fund, Service Fees, etc.) which have no net County cost. If additional funding is needed to meet the recommended standards, that funding will be identified as part of the implementation phase.

Fire protection services which include first responder emergency medical services and first responder hazardous materials incident control services are provided to the unincorporated areas of the county by eleven fire protection agencies. (See Figure 1) Four of these agencies are under the direct control of the board of supervisors (Eden Consolidated Fire Protection District, Castro Valley Fire Protection District, the County Fire Patrol and the O.E.S. volunteer fire department). Five agencies provide services under contract with the county (California Department of Forestry, City of Hayward, City of Pleasanton, East Bay Regional Parks District and the Dougherty Fire Authority). The two remaining agencies which provide services in the unincorporated area operate independently. (Fairview FPD and the Lawrence Livermore National Laboratories.) These agencies and the areas they protect are identified in Map 1.

FIGURE 1 - FIRE SERVICES
IN UNINCORPORATED ALAMEDA COUNTY



MAP 1 - ALAMEDA COUNTY FIRE PROTECTION AGENCIES AND FIRE STATIONS

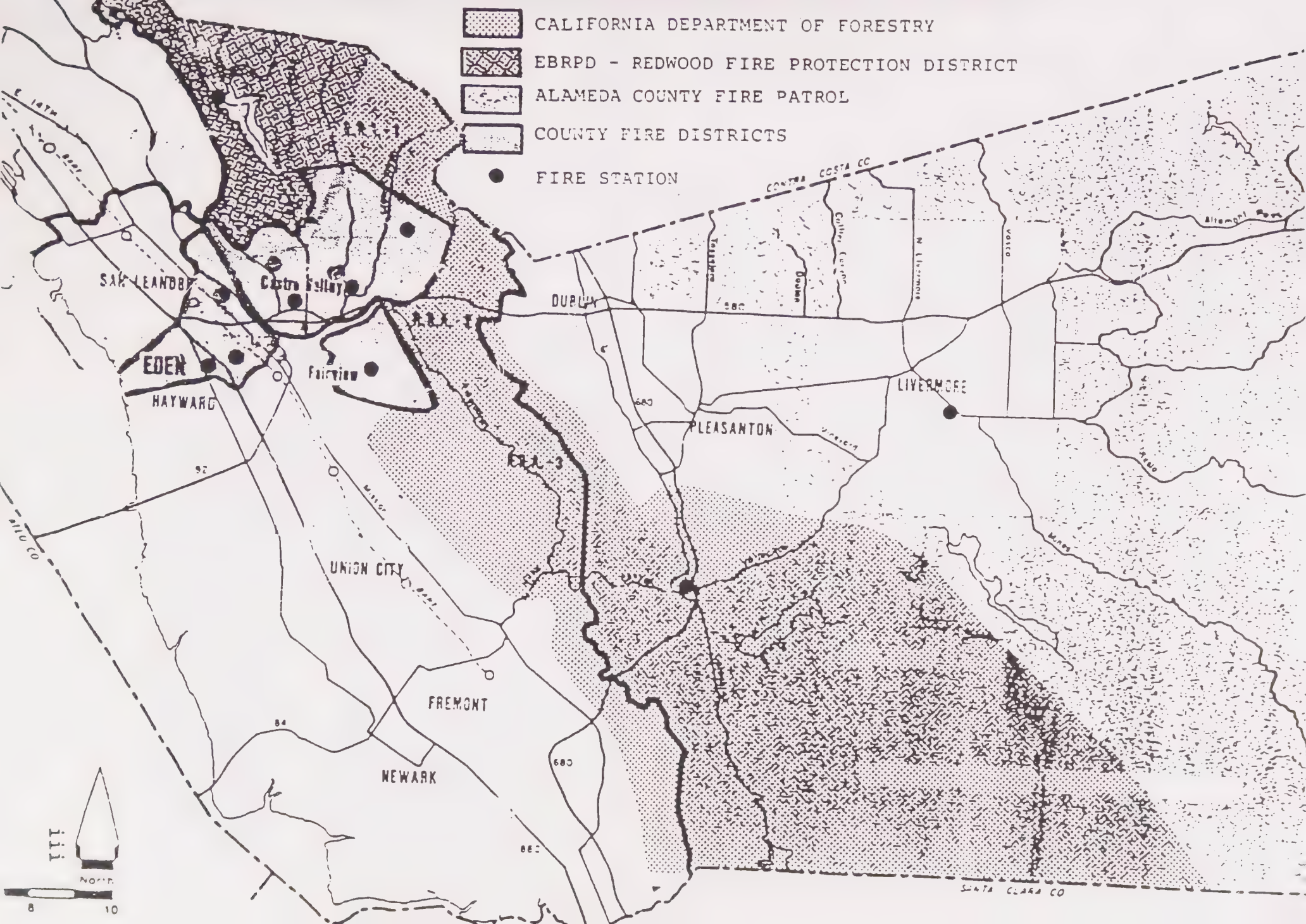
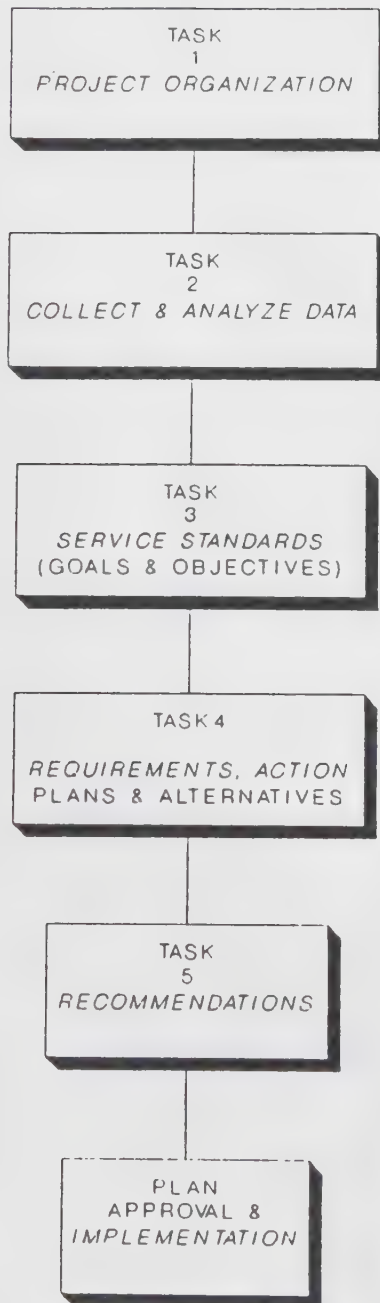


FIGURE 2
FIRE PROTECTION MASTER PLANNING PROCESS



The planning process used to develop this master plan consists of six tasks as described in Figure 2. These are:

Task 1. Data Collection: An analysis of current service demands, projected future service demands and current fire district organization and operations.

Task 2. Goals and Objectives: In this section recommended service policies and service level standards were developed. Two levels of service standards have been recommended. One level for urban areas and the other level for rural areas.

Emphasis is placed upon fire risk mitigation and built-in fire protection systems throughout the unincorporated areas in order to limit fire risks and the costs of providing fire protection. In rural areas emphasis is placed upon self-help safety programs in addition to built-in fire protection.

These service level standards apply to fire protection, first responder emergency medical services (EMS) and hazardous materials controls. It is proposed that these standards apply to all unincorporated areas including areas served under contracts with other agencies.

Task 3. Resource Requirements: The resources required to provide the recommended service levels are identified. The resources identified relate primarily to personnel and fixed assets.

Task 4. Alternatives: Alternative organizational structures have been analyzed, including maintaining the status-quo, functional consolidation and organizational consolidation.

Organizational consolidation has been recommended to improve efficiency, reduce duplication and control costs.

Task 5. Preparation, Review and Approval of the Master Plan: The results of each step in the planning process were reviewed by a Management/Planning advisory committee which provided recommendations, corrections or additions to the task reports.

It is proposed that the board of supervisors adopt the master plan in concept and implement specific recommendations related to reorganization, fire and building code adoption and certain fixed asset purchases.

Task 6. Implementation of Plan: It is proposed that a county fire protection district be formed; that a revised management system be implemented which emphasizes the accomplishment of the service levels recommended in the plan; and the annual updating of the plan and related programs. The results of implementing the plan will be reported periodically to the county administrator through a new data and reporting system.

MANAGEMENT/PLANNING TEAM

A Management/Planning Team was maintained throughout the study. This group reviewed the results of each task and provided input to the consultant. The members of the Management/Planning Team were:

Alameda County:

Mr. Dan Regan, Administrative Analyst
Mr. Don Graff, Administrative Analyst
Mr. James Sorensen, Planning Department
Mr. Mike Hood, Building Department
Captain Tim Ostlund, Sheriff's Department
Captain Gary Thuman, Sheriff's Department
Deputy John Quinn, Sheriff's Department

Alameda County Firefighters Association, IAFF Local 1428:

Al Klevano, President
Jeffrey Ramsey, Past-President
Bill Potts, Vice-president
Dave Tebaldi, Past Vice-president
Dave Wheeler

California Department of Forestry and Fire Protection:

Mike Martin, Battalion Chief

Castro Valley Fire Protection District:

Robert Waberski, Fire Chief
Norbert Hudak, Deputy Fire Chief
Lennie Orr, Director of Training

County Fire Patrol:

Ted Ferriera, Fire Chief
Randall Moore, Captain (Acting Chief)

Eden Consolidated Fire Protection District:

Bruce Bradley, Fire Chief
Mark Blanchard, Deputy Chief

Fairview Fire Protection District:

Ralph Yunghans, Fire Chief

Information was also provided by: Diane Akers, Alameda County Health Agency; Sheriff Deputy Cathy Case, Santa Rita Jail; Assistant Fire Chief John McCahan and Fire Captain Mike McDowell, O.E.S. Fire Department; Fire Chief Joseph Rabini, Redwood Fire Protection District; Fire Chief John Sharry, Lawrence-Livermore Laboratories; Fire Chief George Withers, Pleasanton Fire Department; Fire Chief Dennis Van Der Maaten and Assistant Chief Paul Gantt, Livermore Fire Department; Fire Chief Harold Ritter, Dougherty Regional Fire Authority; Fire Chief Mike Bradley, Hayward Fire Department; and Fire Chief Gene Le Blanc, Tracy Rural Fire Protection District.

REORGANIZATION OF COUNTY FIRE PROTECTION SYSTEM

This study was commenced without preconceptions about consolidation of the fire districts. Organizational options such as functional consolidation of various support services were considered. Although some automatic aid agreements currently exist, the functional consolidation of programs such as training, fire prevention, public education, and data systems management would not be effective due to differing management approaches to these programs. Although duplication of effort, especially at the support services level is occurring, it does not appear that effective programs with reduced duplication will occur without organizational consolidation under one management system.

It is recommended that a county-wide fire protection district be organized to serve the unincorporated areas of Alameda County.

The current and future service demands for fire protection, first responder emergency medical services and hazardous materials controls have been identified in Task 2. The recommended service level standards were developed in Task 3. The resources required to provide the recommended service levels are identified in Task 4, which consist primarily of personnel and fixed asset program requirements.

Four optional methods of providing the recommended service levels have been identified. Three of these consist of alternative organizational structures. These options and their related costs have been identified in Task 4. Recommended actions which are required to provide the recommended service levels are listed in Task 5.

The options and organizational structures which have been evaluated are summarized here and described in detail in Task 4:

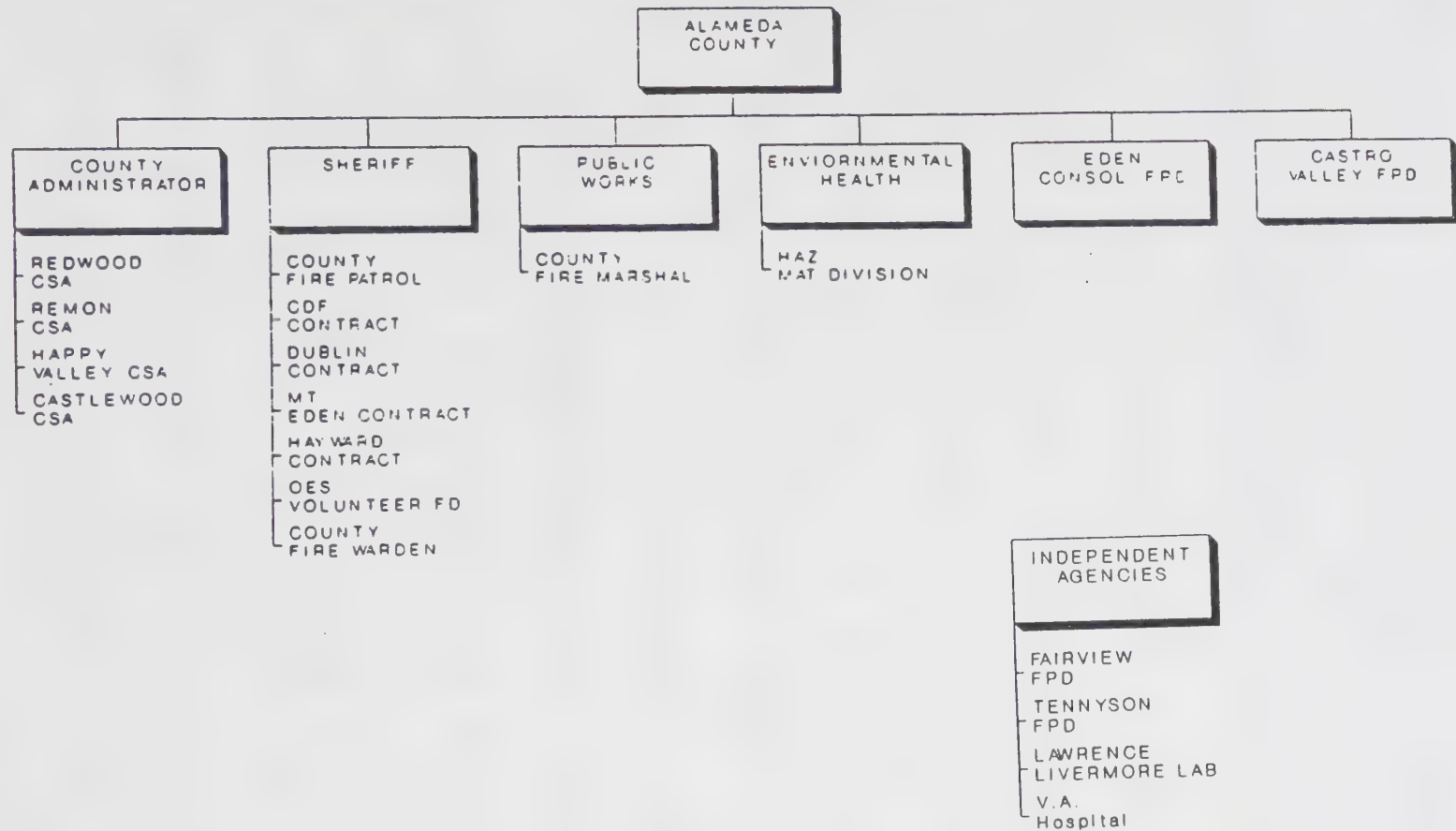
1) The Current Organizational Structure with Sufficient Added Resources to Provide Recommended Support Services

In this alternative the current organizational structure would be maintained. Additional personnel, programs, equipment and facilities would be added to provide the recommended support services. However, this option would not meet recommended emergency response standards. This alternative requires the addition of personnel and retains the duplication of management and support services which currently exist. This alternative was not recommended due to increased cost and failure to meet emergency response standards. (See Fig. 3 and Task 4, pgs. 76 & 77)

2) Alternative #1 - Form a County Fire District which includes ECFPD, CVFPD, FFPD, CFP AND THE O.E.S. volunteer fire department.

A county-wide fire district would be formed under this alternative which includes CVFPD, ECFPD, CFP, O.E.S. volunteers and the Fairview Fire Protection District (FFPD). Adequate support service levels could be provided. However, emergency responses in the Eastern portion of the County would remain deficient.

FIGURE 3 - FIRE SERVICES IN UNINCORPORATED ALAMEDA COUNTY



This option also requires the approval of the Fairview District to participate. There is at this time no indication that the FFPD desires to join a consolidated district. (See Figure 4 and Task 4, for a detailed description of Alternative #1) FFPD is also considering a possible merger with the City of Hayward which appears also to be viable option.

3) Alternative #2 - Form a County Fire District which includes, ECFPD, CVFPD, CFP AND THE O.E.S. volunteer fire department

A county-wide fire district would be organized as in Alternative #1 with the exception that the FFPD is not included in this reorganization. (See Figure 5 and Task 4 for a detailed description of Alternative #2)

4) Alternative #3 - Form a County Fire District which includes ECFPD, CVFPD, CFP AND the O.E.S. volunteer fire department and contract with the City of Livermore for emergency responses services.

In this alternative a consolidated fire district would be formed as in Alternative #2 with the exception that a contract would be developed with the Cities of Livermore and Pleasanton for emergency response services in the areas currently served by the CFP. The staff of the CFP would be reassigned through one of four optional plans. (See Figure 6 and Task 4 for a detailed description of Alternatives 3A, 3B, 3C and 3D.)

5) Alternative #3A: The county engine company at the Sunol CDF station would be staffed by district personnel and three personnel would be maintained on duty. A contractual agreement would be developed for joint use of the CDF facility. The current agreement with CDF for staffing of the engine would be discontinued. The thirteen CFP personnel would be reassigned as follows: Nine personnel to Sunol CDF facility, two personnel to the district to maintain minimum staffing and two personnel to fire prevention and fire safety education.

Alternative #3B: The proposed contract with the city of Livermore would include the transfer of nine personnel from the CFP to the City of Livermore. These personnel would become permanent employees of the city. The thirteen CFP personnel would be reassigned as follows: Nine personnel to the City of Livermore, two to maintain minimum staffing within the county fire district and two personnel to fire prevention and fire safety education in the county fire district.

Alternative 3C: The proposed contract with the Cities of Livermore and Pleasanton would include the employment of six personnel from the CFP by the City of Livermore. Thirteen CFP personnel would be reassigned as follows: Six personnel to Livermore, one person to the district training division, three personnel to maintain minimum district staffing, and three personnel to fire prevention and safety education programs.

FIGURE 4 - COUNTY FIRE SERVICES
ALTERNATIVE 1

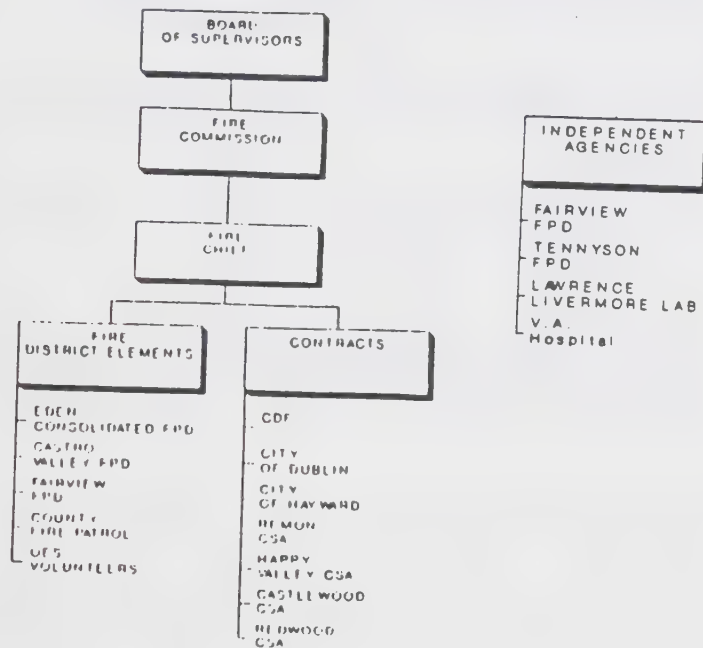


FIGURE 5 - COUNTY FIRE SERVICES
ALTERNATIVE 2

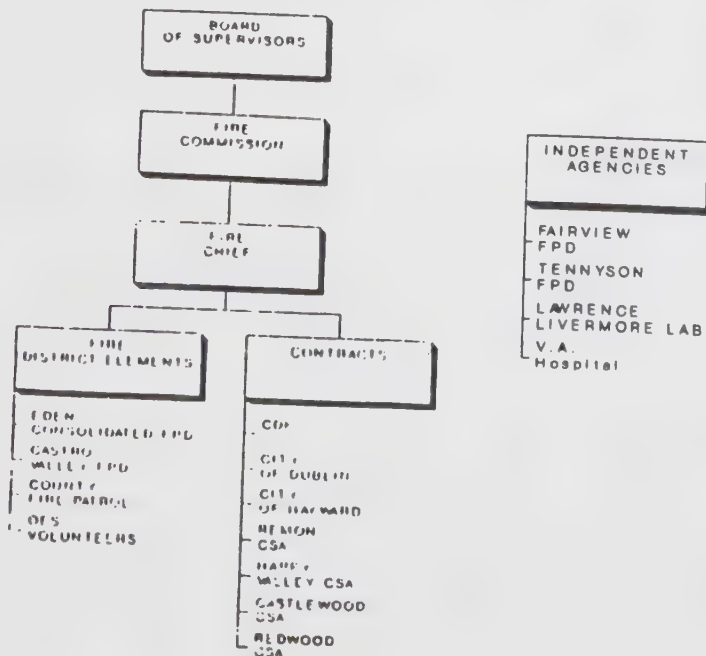
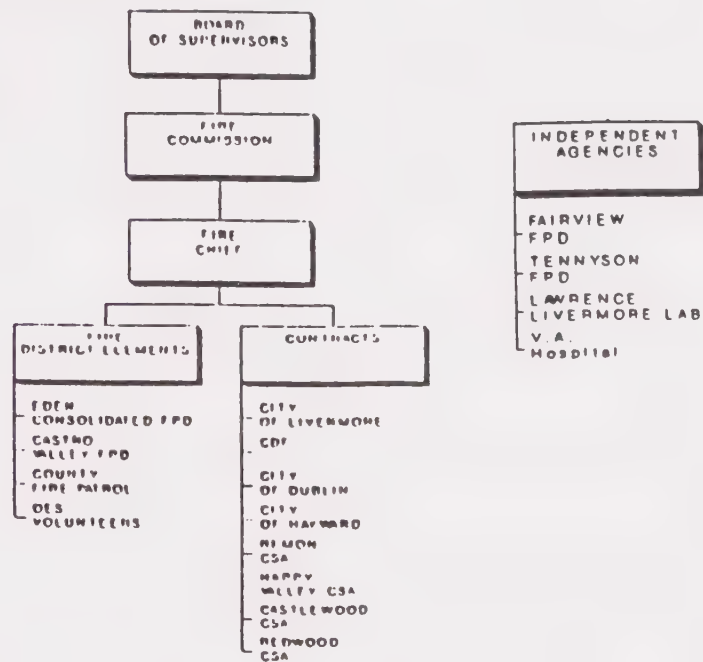


FIGURE 6 - COUNTY FIRE SERVICES
ALTERNATIVES 3A, 3B, 3C AND 3D



Alternative 3D: Under this option a contract would be developed with the Cities of Livermore and Pleasanton. Nine of the thirteen positions from CFP would be assigned to staff an additional engine at the current Castro Valley fire station #2. This would improve the resource response to the Crow Canyon and Norris Canyon areas. The thirteen personnel from CFP would be reassigned as follows: Nine to staff an additional engine at CVFPD station 2, two personnel to maintain minimum district staffing and two personnel to district fire prevention and fire safety education programs.

Alternative #4: The consolidated fire district would be formed. The County Fire Patrol resources and services would be expanded under the supervision of the new consolidated fire district.

Recommended Alternative

Alternative organizational structure #3C is recommended since it provides the most efficient and effective fire protection, EMS and Haz Mats services to the unincorporated areas of the county.

SUMMARY OF PROPOSED ALTERNATIVE ORGANIZATIONAL COSTS

A detailed description of the costs of each organizational alternative has been provided in the Task 4 - Alternatives section.

SYSTEM	SALARY & BENEFITS	SERVICE & SUPPLIES	FIXED ASSET	TOTAL
CURRENT	\$11,283,195	\$2,864,114	\$1,328,130	\$15,588,700
CURRENT MODIFIED	\$11,701,350	\$5,197,700	\$994,300	\$17,892,350
ALT. #1	\$11,580,240	\$4,948,210	\$953,600	\$17,482,050
ALT. #2	\$10,980,240	\$5,503,091	\$868,600	\$16,484,200
ALT. #3A	\$10,693,905	\$5,042,015	\$847,500	\$16,583,420
ALT. #3B	\$10,201,450	\$5,337,510	\$847,500	\$16,386,460
ALT. #3C	\$10,423,950	\$5,337,510	\$847,500	\$16,608,960
ALT. #3D	\$10,868,950	\$5,337,510	\$847,500	\$17,053,958
ALT. #4	\$11,743,850	\$6,083,620	\$1,755,500	\$18,728,258

COMPARATIVE COST INCREASES BY ALTERNATIVE

The estimated additional annual cost for each alternative as compared with the current costs are:

Current costs	N/A
Modification of current system	+\$2,393,650
Alternative #1	+1,893,350
Alternative #2	+895,500
Alternative #3A	+994,720
Alternative #3B	+797,760
Alternative #3C	+1,020,260
Alternative #3D	+1,465,258
Alternative #4	+3,139,558

ALTERNATIVE RESOURCE LEVELS FOR CONSOLIDATED FIRE DISTRICT
STATIONS, FIRST LINE APPARATUS AND PERSONNEL

TITLE	CURRENT SYSTEM	ALT. 1	ALT. 2	ALT. 3A	ALT. 3B	ALT. 3C	ALT. 3D	ALT. 4
STATIONS	9	10	9	8	8	8	8	11
ENGINE	13	15	13	12	12	12	13	15
TRUCK	1	1	1	1	1	1	1	1
SQUAD	3	3	3	2	2	2	2	3
PATROL	6	7	6	4	4	4	4	6
WATER TENDER	1	1	1	1	1	1	1	1
TOTAL	24	27	24	20	20	20	21	26
FIRE CHIEF	4	1	1	1	1	1	1	1
DEPUTY CHIEF	2	2	2	2	2	2	2	3.5
ASST. CHIEF (VOL)	1	2	2	2	2	2	2	2
BATTALION CHIEF	7.2	6.2	6.2	6	6.2	6.2	6.2	6.2
TRAINING OFFICER	1	2	2	2	2	3	2	3
FIRE MARSHAL	0	1	1	1	1	1	1	1
DEP. FIRE MARSHAL	3	4	4	6	6	7	6	7
CAPTAIN	33	36	33	30	30	30	33	39
CAPTAIN (VOL)	2	2	2	2	2	2	2	2
LIEUTENANT (VOL)	3	3	3	3	3	3	3	3
ENGINEER	33	39	36	33	33	33	36	39
FIREFGHTR	57	55	52	48	48	51	54	63
FIREFIGHTER (VOL)	27	48	27	27	27	27	27	27
CLERICAL	2.25	3.25	2.25	2	2.25	2.25	2.25	2.75
TOTAL	175.45	204.45	173.45	165	165.45	170.45	177.45	199.45

* May increase by two due to reclassification of fire chiefs.

The current system excludes the Fairview Fire District personnel;
however if their personnel were added, the total would be 204.45

EMERGENCY RESPONSE STANDARDS

There is a wide variation in the levels of service provided in certain areas of the county. Service level standards have not been identified or adopted for the unincorporated areas of the county. It is recommended that the Board of Supervisors adopt the service level standards proposed in this plan.

The service level standards recommended in this report are based upon nationally recognized criteria for fire and emergency medical services. This criteria is described in Figures 7 and 8. Figure 7 demonstrates the time frame and fire district operations required to control fires prior to "flashover", the point at which major life risk and fire damage occurs. Figure 8 demonstrates the time frames and operations in EMS incidents which are relevant to the reduction of life loss.

A complete listing of recommended standards is contained in Task 3. The primary incident response standards are:

- o The first engine will arrive at fires with three personnel within three minutes at 95% of fire incidents..
- o All personnel normally required to control a fire incident will arrive within ten minutes at 95% of fire incidents.
- o The first engine will arrive at EMS calls with three firefighters trained as emergency medical technicians within five minutes at 95% of emergency medical incidents.

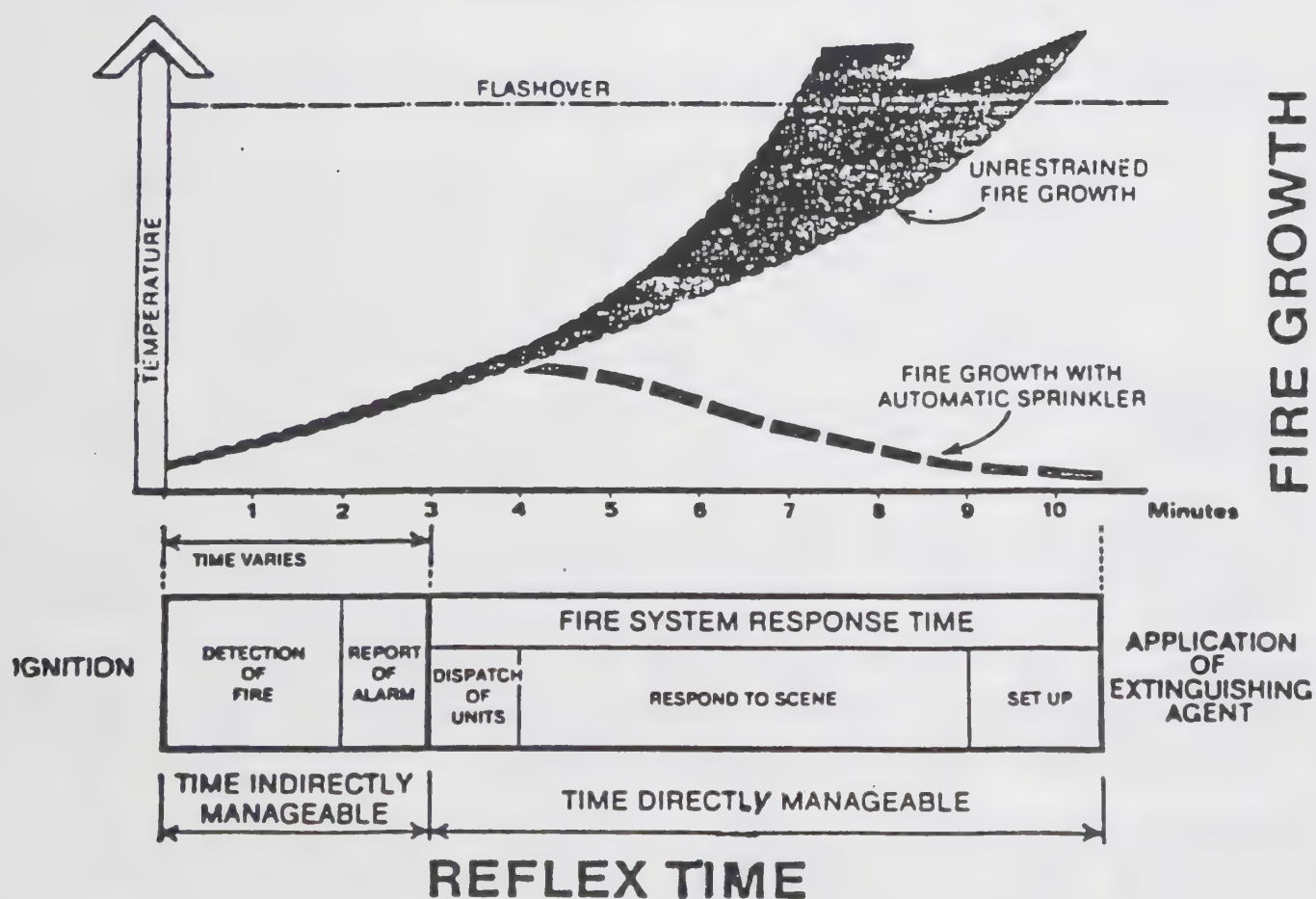
Emergency response deficiencies have been identified in the eastern portions of the county and in the Crow Canyon/Norris Canyon areas based upon the recommended service level standards.

A citizens group in the Crow Canyon area have submitted a petition to the county recommending that fire protection and emergency medical services be improved. (See Task 2, Appendix P) It is proposed that service to that area be improved by including this area in the proposed fire district with service provided by the current CVFPD facilities and the San Ramon Valley Fire Protection District, through an automatic aid agreement. It is also proposed that a fire station site be purchased for the future construction of a fire station to serve the Crow Canyon and Norris Canyon areas.

Although the emergency response resources are adequate in Castro Valley (CVFPD), Eden Consolidated (ECFPD) and Fairview (FFPD) fire districts, there is a need for additional administrative, fire prevention, training and other support services in those districts. There is also a need to provide improved coordination for major incident management.

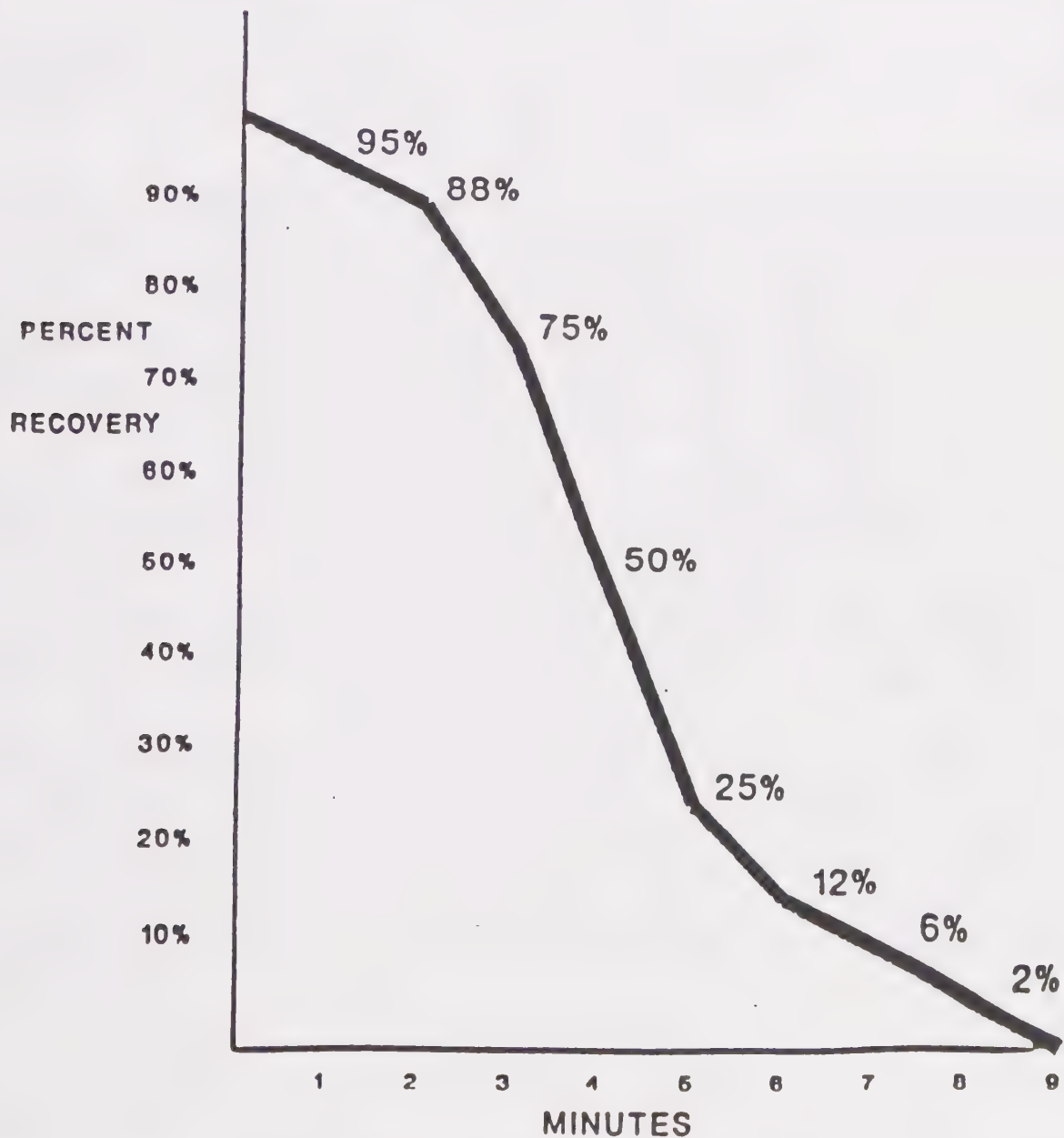
The County Fire Patrol (CFP) has significant deficiencies in personnel, equipment and facilities. The CFP fire station is located within the city limits of Livermore. Only a few small portions of the

FIGURE 7
FIRE GROWTH vs REFLEX TIME



FLASHOVER is the condition in interior fires when all contents reach the self ignition point (approximately 800 degrees F.). At this point all combustible materials in the room or building area are burning and major property damage and life loss occurs.

FIGURE 8 - PROBABILITY OF RECOVERY FROM CARDIAC ARREST vs REFLEX TIME



INCIDENT DETECTION	REPORT	EMERGENCY MEDICAL RESPONSE TIME		
		DISPATCH	RESPOND TO SCENE	SETUP

TIME INDIRECTLY

MANAGEABLE

TIME DIRECTLY MANAGEABLE

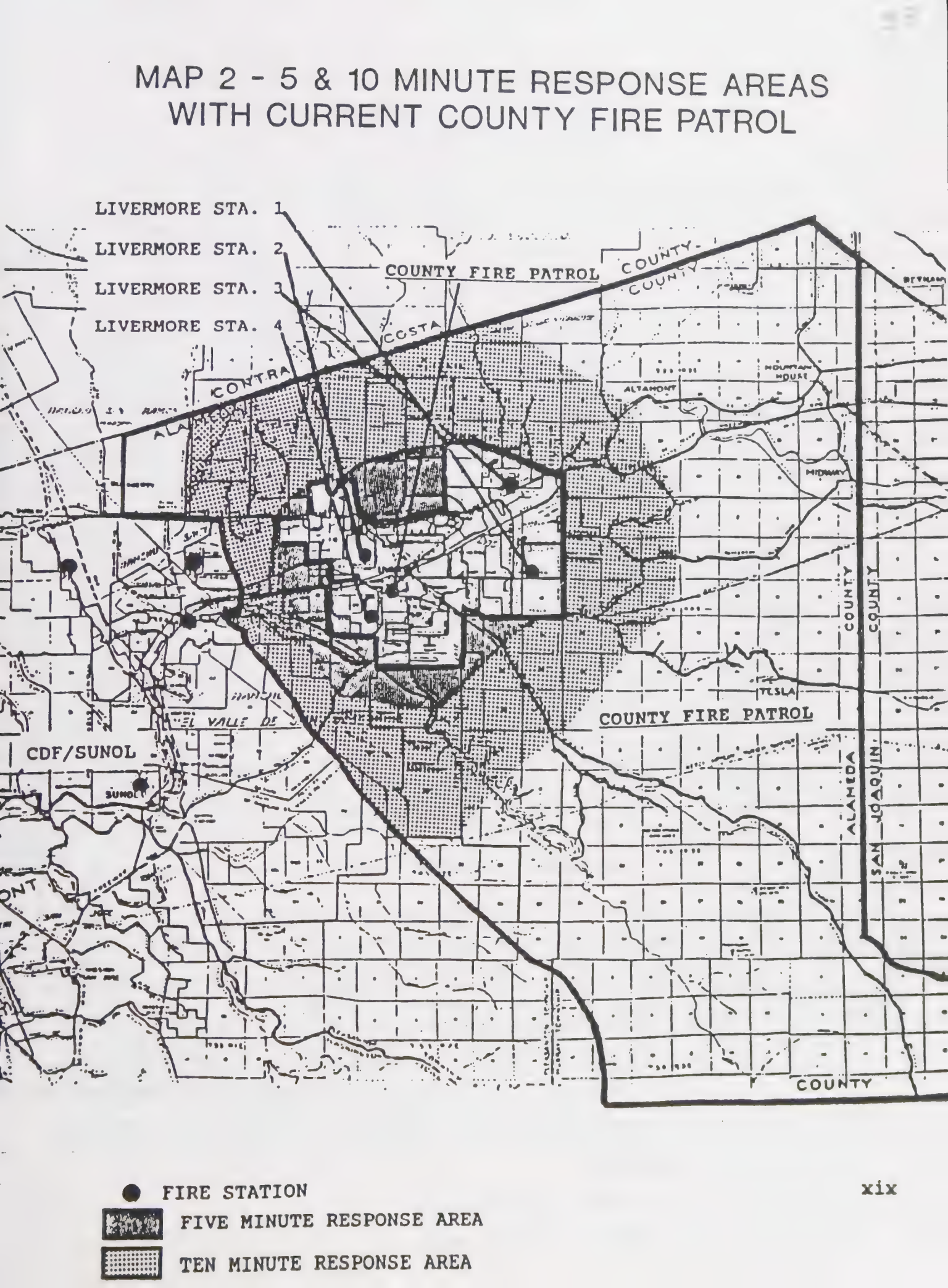
unincorporated county area can be reached within the recommended response time by the first arriving CFP unit. (See Map 2) This area can be served more effectively by the Livermore Fire Department facilities. (See Map 3) The CFP is charged with the responsibility of fire code enforcement in all unincorporated areas outside the three fire districts. CFP lacks the resources to provide adequate fire prevention services. As an element of the county sheriff's department CFP has not received adequate resources or support. It is recommended that the CFP be consolidated with the existing fire districts to form the proposed fire district and a contract should be developed with the City of Livermore for emergency response services in the current CFP area.

It is recommended that the O.E.S. volunteer department become part of the new fire district and be fully supported by the district. The O.E.S. volunteer fire department is a valuable resource which can provide needed trained personnel for major emergencies. The volunteer department can also serve as an entry level training program which develops qualified personnel and reduces training costs. This program can also be an effective method of meeting affirmative action goals. The volunteer department needs the training and administrative support which can be readily provided by the proposed fire district.

It is also recommended that a county-wide automatic aid program be developed and adopted under which the closest fire unit is dispatched to emergencies regardless of jurisdiction.

The improved services available as a result of the county-wide automatic aid program should be considered in fire station location and staffing plans. This can result in more effective placement and staffing of stations.

It is also recommended that consolidated communications and dispatch centers be developed to serve fire protection agencies. These dispatch centers should service both city and county fire protection agencies. The centers, dedicated exclusively to fire department operations, will provide the personnel and equipment needed to operate the proposed automatic aid programs and to adequately cope with most major or multiple fire, EMS and Haz Mat incidents in addition to improving efficiency and effectiveness for routine operations.



- [illegible]

MAP 3 - 5 & 10 MINUTE RESPONSE AREAS WITH LIVERMORE SERVICE CONTRACT

LIVERMORE STA. 1

LIVERMORE STA. 2

LIVERMORE STA. 3

LIVERMORE STA. 4

LLNL

COUNTY
COUNTY

COSTA

CONTRA

COUNTY FIRE PATROL

CDF/SUNOL

SUNOL

ALAMEDA
SAN JOAQUIN

COUNTY

● FIRE STATION



FIVE MINUTE RESPONSE AREA



TEN MINUTE RESPONSE AREA

CONTRACTUAL AGREEMENTS:

It is recommended that a contractual agreement be developed with the Cities of Livermore and Pleasanton for protection of the area currently served by the County Fire Patrol. This agreement should be for a minimum of five years with a two year notice of cancellation required by either party.

It is recommended that the current contracts with the City of Hayward, the City of Pleasanton, the Dougherty Fire Authority and the California Department of Forestry (CDF) be continued. However, the contract with CDF should be revised to provide one additional position (captain) in order that a minimum three person response can be provided on the first engine. The contract should also be modified to assure that fire prevention, public safety education programs and similar engine company level services provided by the fire districts are also provided by CDF. All contracts should be monitored by the chief of the district to assure that the desired benefits and cost controls are maintained.

The contract with Pleasanton should be revised to require the city to provide company level fire prevention, fire safety education and fire investigation services in the contract areas. The county fire district will provide fire prevention bureau level services, such as new construction plan review, construction inspections and high hazard occupancy inspections.

Structural fire protection, first responder EMS and hazardous materials incident management in the Altamont Pass area should be improved through an automatic aid or contractual agreement with the Tracy Rural Fire Protection District. A large development known as the Mountain House project is proposed on the eastern side of the Altamont Pass. Since the majority of this project will be in San Joaquin County, the small portion which is planned to be in Alameda county should be served under contract by the Tracy Rural Fire District.

BUILT-IN FIRE PROTECTION

The current fire protection system in the unincorporated areas is based upon the traditional concept which allocates the majority of resources to fire fighting operations with minimal emphasis upon fire prevention, automatic fire control systems and safety education directed toward self-help programs. The outstanding exception to this practice is the fire protection program at the Santa Rita Jail. When this facility was constructed a high level of "built-in" fire protection was provided in the form of automatic sprinkler systems, detection systems, and the assignment of a full time person as facility fire marshal to assure the testing and maintenance of these systems. As a result, the fire station, equipment and personnel which provided protection at the old jail are no longer needed.

It is recommended that the county adopt a policy of limiting the fire risks and the costs of providing fire protection throughout the unincorporated areas of the county by implementing fire mitigation measures including the requirement of automatic fire sprinklers in all new structures. These systems all but eliminate life loss, significantly reduce property damage and enable the county to control the costs of fire protection while providing a high level of fire safety.

Significant benefits are available to developers, commercial building owners and homeowners as a result of installing automatic fire sprinklers. These benefits include: the reduction of construction costs, increased design flexibility and reduced insurance rates.

It is also recommended that fire code amendments be adopted which require the control of flammable vegetation, minimum street widths, fire protection water supplies, street and house signing consistent with the CDF standards (Public Resource Code 4290). These code provisions should be actively enforced through a citation program.

HAZARDOUS MATERIALS CONTROLS (HAZ MAT)

The fire districts provide first responder services to control Haz Mat incident control. An effective Haz Mat incident control team and program have not been developed, although first responder training is being conducted. Haz Mat storage and notification required by state and federal regulations are currently the responsibility of the County Environmental Health Department. Effective services which meet operational needs are not provided. An incident response program operated by county health department is also perceived to be ineffective.

It is recommended that the county fire district assume the responsibility and available fee system for the enforcement of the state and federal regulations related to the storage of Haz Mats. It is further recommended that the fire district participate in the funding and operation of the Haz Mat teams currently being organized by fire departments in the Eastern (Twin-Valley) and Southern portions of the county.

MANAGEMENT INFORMATION SYSTEM DEFICIENCIES AND RECOMMENDATIONS

Improved data and reporting systems are needed in order to adequately manage and evaluate the implementation of the master plan. In many cases the data needed to accurately evaluate service demands and service delivery during the development of this plan were not available. In many instances the estimates of service demands and resource requirements are estimates which will need to be validated with improved data as the plan is implemented.

It is proposed that the data system which is being implemented by the Castro Valley Fire Protection District be implemented district

wide. It is also recommended that periodic reports of activities and service levels be provided to operations personnel and top management in order to manage programs and evaluate the efficiency and effectiveness of fire district operations.

DISTRICT FINANCING

The focus and purpose of this report is to look at how Alameda County is currently meeting its obligations for providing fire protection and to recommend alternatives which could improve efficiency and effectiveness. The report concludes that the County is not currently meeting "recommended service level standards" in a number of areas. A number of alternatives are recommended under which Alameda County can be brought into compliance with these "recommended service level standards", including maintaining the current organizational and administrative structures. However regardless of which alternative is selected by the Board of Supervisors, and increase to current appropriation levels will be required. The conclusion with respect to Alternative 3C, which calls for consolidation of all existing fire services into one new district, is that this alternative not only makes sense from an organizational and management perspective, but that it is preferable because it can be accomplished with a minimum of additional appropriations. For example, the data indicates that to upgrade the current organizational structure to meet the required standards would add approximately \$2.3 million to the current total fire service appropriation amount. The estimated additional appropriations associated with the various other alternatives range from a low of \$0.7 million to a high of \$3.1 million.

From a County budget perspective, if one were to combine the existing budgets of Eden, Castro Valley, Fire Patrol, etc., total appropriations would need to increase by approximately \$2.3 million. However, it must be remembered that this projection of an estimated financing gap is without consideration to the revenue side of the budget equation. To determine the amount of the actual gap, if any, involves a detailed review of all aspects of the various fire budgets (salaries, benefits, service and supply, fixed assets, property taxes, Special District Augmentation funding, other revenues, etc.) as a single combined entity.

Since fire districts are non-general fund budgets and have no new County cost, the report estimates that if the existing revenue sources (property taxes, Special District Augmentation funds, fees, etc.) are maintained at the 1991-92 level, it will require an estimated \$0.7 million to \$3.1 million to keep the budget in balance. The report recommends a range of potential financing mechanisms that the Board of Supervisors may want to consider in evaluating how to bridge any remaining financing gap. A budgetary assumption is made that the Board of Supervisors existing budgetary policies with respect to the distribution of current revenues will remain the same under a consolidated district format. This report looked at the potential cost impacts. The separate question of how best to finance any

additional costs is recommended to be address during the implementation phase.

The implementation step, recommended to be conducted by the County Administrator, involves evaluating what budget balancing methods and approaches would be most appropriate and consistent with the Alameda County's overall fiscal and program priorities. The initial starting point of this analysis will be to look at the combined existing revenues (Property taxes, Special District Augmentation fund, etc.) of the various Fire Districts and the development of a projection as to how they may rise or fall in subsequent years. If the combined existing revenue projections are sufficient to cover salary and other operating expenses plus the additional \$2.0 million, for example, the Unmet Need gap is closed and the budget is balanced without having to evaluate the need for new fees or assessments. There are a number of other budgetary strategies that will need to be explored as well as part of this analysis. The report strongly recommends that at this time one should not be excluding consideration of certain financing options (benefit assessments, development fees, and user fees) but rather everything should be kept on the table for discussion and evaluation during the implementation phase. Then, as the information is refined, financing alternatives can become more focused and specific recommendations developed for policy consideration by the Board of Supervisors.

Certain added fees are recommended regardless of existing revenue sources within the individual fire districts. These fees are primarily permit fees and cost recovery service fees which are defined in the fire code. Additional service cost recovery fees would include hazardous material control fees and citation fees for noncompliance with the fire code. The following programs are being recommended for implementation to supplement existing funding sources.

- o The permit fee system in the Uniform Fire Code should be fully implemented.
- o An fire code inspection fee system should be developed and implemented.
- o A citation and fine system should be developed and implemented to fund the costs of code enforcement when significant non-compliance occurs.
- o The hazardous materials inspection and permit fees should be assumed and modified to fully fund Haz Mat code enforcement and information dissemination.
- o Weed abatement and flammable foliage removal programs should be fully funded by fees.

IMPLEMENTATION OF THE PLAN

It is recommended that the final draft of the plan be reviewed with the fire commissioners of the fire districts, the Cattlemans' Association, the residents of Crow Canyon who submitted the petition regarding improved service, and the Board of Supervisors.

After public hearings the plan should be submitted to the Board of Supervisors for adoption. Upon acceptance by the County Board of Supervisors, it is recommended that the Final Report be referred to the County Administrator's Office for coordination, guidance and monitoring of the various implementation issues. Specific sections of the report which need to be addressed as part of any implementation include:

- o review and designation of work groups to implement tasks as contained in Table 1 of the Report;
- o Prepare and adopt amendments to the building code;
- o Prepare and adopt amendments to the fire code;
- o Prepare and submit reorganization request, including detailed program and financial analysis, to the Local Agency Formation Commission (LAFCO);
- o Prepare and adopt amendments to the county general plan,
- o Prepare capital improvement plans,
- o Analyze budgetary and funding requirements in preparation for the 1992/93 budget.

A detailed schedule of implementation tasks is contained in Table 1.

LAFCO Procedure:

It is estimated that it will take approximately one year to complete the Local Agency Formation Commission (LAFCO) process for the formation of the new fire district. During this period numerous tasks should be completed in preparation for the implementation of the new district. (See Task 4 and Table 1)

Assignment of Tasks and Responsibilities

The programs and actions which have been identified in Task 4 should be assigned to specific individual, priorities should be identified and completion dates should be established. It is recommended that the program planning, management and evaluation process described in Appendix A of Task 5 be implemented.

Plan Revision and Budget Preparation

It is recommended that the implementation schedule, service level accomplishments, program assignments and resource requirements be reviewed annually as part of the budget preparation and that necessary changes be made to the master plan to coincide with changing conditions. The master plan should serve as a general guide for

preparation and of a program oriented budget and effective program management.

Assuring that Master Plan is Implemented and Maintained

In order to assure improved efficiency and effectiveness in fire service programs is imperative that management actions be taken to assure that the plan be implemented and revised as needed. These actions include developing a revised management system under which the programs recommended in this study are integrated into a program budgeting and management process with periodic monitoring of results. The annual budget preparation for the district should include an evaluation of the progress toward implementing the plan and revisions to the plan as needed.

TABLE 1 - FIRE PROTECTION MASTER PLAN IMPLEMENTATION SCHEDULE

PROGRAM/ACTION PLAN	3	6	9	12	18	24	36	48	60
MANAGEMENT ACTION PLANS									
1. Form new district	X-----			X					
2. Define agency roles				X					
3. Revise plan annually						X	X	X	X
4. Revise program objectives						X	X	X	X
5. Implement data system				X					
6. Provide periodic reports									
7. Develop fee system		X-----			X				
8. Adopt promotion criteria						X			
9. Maintain ICS System	X								
10. Revise Mgt. System				X					
11. Conduct Staff Meetings				X		on-going			
FIRE PREVENTION									
1. Adopt Fire Code				X		X		X	
2. Enforce New Const. Codes				on-going					
3. Modify Cert. of Occup.				X					
4. Inspect Existing Occup.				X		X	X	X	X
5. Assure Spr. System Tests				X					
6. Monitor Spr. Systems				X					
7. Implement Citation Program				X					
8. Adopt Sprinkler Ordinance				X-----		X			
9. Adopt Firesafe Roof. Ordinance				X					
10. Identify Code Trade-offs		X-----		X					
11. Join One-Stop Plan Review			X-----	X					
12. Adopt Fuel Mod. Plan				X					
13. Implement Fee System					X				

TABLE 1 - FIRE PROTECTION MASTER PLAN IMPLEMENTATION SCHEDULE

PROGRAM/ACTION PLAN	3	6	9	(MONTHS)						
				12	18	24	36	48	60+	
FIRE SAFETY EDUCATION										
1. Develop District-wide Program				X-----		X				
2. Implement K-12 Program						X				
3. Develop Comm/Indust. Program							X			
4. Provide Rural Self-Help				X						
FIRE SUPPRESSION										
1. Provide 1st. Alarm	X-----	X								
2. Adopt 1st. Eng. Policy	X-----	X								
3. Rural 1st. Eng. Policy	X-----	X								
4. Adopt Rural Service Plcy	X-----	X								
5. Adopt 1st. Alarm Policy	X-----	X								
6. Maintain Mutual/Auto. Aid				on-going						
FIRE INVESTIGATION										
1. Determine Fire Causes				on-going						
2. Investigate Arson				on-going						
3. Maintain Fire Invest. Team				on-going						
EMERGENCY MEDICAL SERVICE										
1. Provide 1st Responder (BLS)				on-going						
2. Support ALS Service				on-going						
3. Provide EMT-D				on-going				X		
4. Develop Heavy-Rescue Ability						X				
5. Develop Multi-Casualty Plan						X-----				
6. Implement EMS Data System						X-----				

TABLE 1 - FIRE PROTECTION MASTER PLAN IMPLEMENTATION SCHEDULE

PROGRAM/ACTION PLAN	3	6	9	(MONTHS)						
				12	18	24	36	48	60	
HAZARDOUS MATERIALS										
1. Develop Incident Control Plan					X					
2. Maintain Operations Certification			X			X	X	X	X	
3. Maintain a Response Team			X							
4. Conduct HMMP Inspections				X		X	X	X	X	
5. Implement Permit Fee System				X-----		X				
6. Require HMMP for C of O.					X					
7. Provide Haz Mat Data System				X						
8. Provide Haz Mat Insp. Trng.				X						
9. Establish Decon & Health Care Facilities				X						
TRAINING										
1. Adopt Entry Level Req.				X						
2. Establish Affirm. Action Plan					X					
3. Adopt Promotion Req.						X				
4. Maintain Skills				on-going						
5. Maintain EMT-1D				on-going						
6. Maintain Haz Mat trng.				on-going						
7. Conduct DMV License Trng.				on-going						
8. Maintain Instructors					X					
9. Certify Cpts. as Instructors							X			
10. Provide Trng. Facilities						X-----			X	
11. Establish Trng. Data System				X						
12. Conduct Accid/Prev. & Phy/Fit.						X				
13. Evaluate JAC			X-----	X						
14. Train Dispatchers				X						

TABLE 1 - FIRE PROTECTION MASTER PLAN IMPLEMENTATION SCHEDULE

PROGRAM/ACTION PLAN	3	6	9	(MONTHS)						
				12	18	24	36	48	60+	
APPARATUS MAINTENANCE AND REPLACEMENT										
1. Assure Reliable Vehicles	X									
2. Provide Daily Test/Maint.				on-going						
3. Adopt Replacement Schedule				X						
4. Establish Data System				X						
5. Maintain Certified Mechanics						X				
FACILITIES										
1. Develop a Facilities Plan			X-----	X						
2. Establish Design Criteria									X	
3. Provide Prev. Maint.				on-going						
4. Analyze Maintenance				X						
5. Adopt Optimum Maint. Plan					X					
6. Implement Data System				X						
DISASTER PLANNING										
1. Develop a Multi-Risk Plan						X				
2. Conduct Annual Exercises				X		X	X	X	X	
3. Conduct Semi-Annual FD Drills						X	X	X	X	
4. Assign Staff to EOC				X						
5. Develop Education Program							X			

TABLE 1 - FIRE PROTECTION MASTER PLAN IMPLEMENTATION SCHEDULE

PROGRAM/ACTION PLAN	(MONTHS)									
	3	6	9	12	18	24	36	48	60+	
DEVELOP ACTION PLANS IN COOPERATION WITH:										
1. County Communications		X-----		X						
2. Building Dept.	X-----	X								
3. Planning Department		X-----		X						
4. County EMS			X-----	X						
5. County Haz Mat Div.		X-----		X						
6. County Public Works			X-----	X						
7. Sheriff's Dept.			X-----	X						
8. Private ALS provider				X-----	X					
9. Educational					X-----	X				
10. Water companies						X-----	X			
11. Auditor-Controller		X-----		X						
12. Contract Agencies		X-----		X						

SUMMARY OF GOALS AND RECOMMENDATIONS

This summary of the recommendations of the plan is also found in Task 5:

FIRE PROTECTION SYSTEM

GOAL: To minimize the risks of injuries, fatalities and property losses due to fire through efficient and effective fire protection programs.

FIRE PROTECTION MANAGEMENT:

It is recommended that Alternative 3C be adopted and that the formation of a consolidated fire district be initiated within three months.

It is recommended that the service level standards identified in Task 3 be adopted by the Board of Supervisors as minimum service level standards for the unincorporated areas of the county. The appropriate standards should be used to revise the Safety Element of the County General Plan.

It is recommended that a policy be adopted by the county which specifies that the primary method of providing fire protection in rural areas is through "built-in" fire protection in structures and "self-help" safety programs. The allocation of fire district resources to these programs will be expanded.

It is recommended that the reorganization proposed in Alternative #3 include the reclassification of the current fire chiefs to deputy chief and that a competitive open exam be conducted to fill the fire chief's position. All of the current fire chiefs should be eligible to compete for this position. The eligibility of other persons to compete for the position will be determined by the county administrator.

It is recommended that the additional deputy chief positions created as a result of the reclassification of fire chiefs should not be refilled when the positions are vacated. These positions when filled should be used to enhance the implementation of the master plan programs at the management level.

It is recommended that a board of fire commissioners be formed for the consolidated fire district which consists of an equal number of CVFPD, ECFPD board members and representatives from the Eastern portions of the county. Members of the FFPD board of directors would also be included if FFPD chooses to participate in this reorganization.

It is recommended that the County Fire Patrol and the O.E.S. volunteer fire department be consolidated with the Eden Consolidated and Castro Valley fire protection districts.

It is recommended that the Fairview Fire Protection District (FFPD) consider participating in this reorganization. Although FFPD is not specifically included in Alternative #3 it is possible, and recommended, that the district participate in that reorganization.

It is recommended that the unincorporated area north-west of highways 580 and 680 be annexed to the new fire district. The Palomares Canyon area between highway 580 and the Hayward city limit should also be annexed to the district. The Palomares Canyon area South of the Hayward city limit should be served through an automatic aid agreement between CDF and the district.

It is recommended that the computerized management information system currently being implemented by CVFPD be expanded to all stations in the consolidated fire district.

It is recommended that the periodic reporting system which is to be developed in Task 1.5 specifically include reporting to the county administrator and the board of supervisors regarding progress in the implementation of the provisions of this plan.

It is recommended that the workload assignments be adjusted between captains, engineers and firefighters to reduce workloads of captains and engineers by better utilization of available hours within the firefighter positions.

It is recommended that volunteer companies be maintained and fully supported by the fire district. The district will provide training, equipment maintenance, and other support services which will enable the volunteers to concentrate upon skill maintenance and emergency responses. The volunteer companies will provide additional resources needed to cope with major emergency incidents. The program will serve as an entry level development program for firefighters.

It is recommended that a new volunteer company be formed in the Sunol area to provide added fire control resources to support the CDF operations.

It is recommended that the contract with CDF be modified to maintain three personnel on duty and to assure that fire prevention, safety education and other activities assigned to fire companies will be performed by CDF at the same level as the county fire district companies.

FIRE PREVENTION

It is recommended that building code amendments be adopted which increase the requirements for built-in fire protection (residential sprinklers and fire retardant roofing). These should be given a high priority, especially in the rural areas.

It is recommended that "fire-safe" standards be adopted to limit the risk from brush fires in the wildland-urban interface areas. These "fire-safe" standards should be equal to or exceed the current state responsibility area requirements found in the Public Resources Code Section 4290.

It is recommended that the newly formed fire district assume the responsibility for all fire prevention functions in the unincorporated areas of the county, including those areas protected under contracts.

It is recommended that the district fire marshal also be designated as the county fire marshal with full authority to enforce local and state mandated regulations.

It is recommended that fire prevention fee schedules be implemented to offset the costs of fire code enforcement, including the adoption of a citation system.

It is recommended that the fire district provide one deputy fire marshal on a scheduled basis to conduct plan reviews in conjunction with the county planning and building departments at their facilities according to the proposed agreement presented by the county building official.

FIRE SAFETY EDUCATION

It is recommended that a comprehensive safety education program be developed and delivered to residents and businesses throughout the unincorporated areas. This program should concentrate upon the rural areas to encourage "self-help" programs such as the retrofitting of residences with automatic fire sprinklers and smoke detectors. This program should receive a major commitment of suppression division resources.

It is recommended that the delivery of fire safety, EMS and Haz Mat control information to homeowners as part of the "self-help" program should be given a high priority.

FIRE SUPPRESSION

It is recommended that the response standards for first arriving units and full alarm assignments be adopted, as recommended in Task 3. Incident response data for activities throughout the unincorporated areas of the county should be evaluated by the county fire chief at least quarterly to assure that standards are being met.

It is recommended that automatic aid agreements be maintained by all fire protection agencies in the county to maximize the effectiveness and efficiency of the emergency response services. The closet unit should respond to all emergency incidents regardless of jurisdiction.

It is recommended that an automatic aid agreement be developed with the San Ramon Valley Fire Protection District for improved service in Crow Canyon and Norris Canyon areas.

It is recommended that response to emergency incidents (fires, EMS or Haz Mat control) in the North-eastern portions of the county be provided through a contract with the city of Livermore.

It is recommended that the current contracts for incident response by CDF, the cities of Pleasanton and Hayward, the Dougherty Fire Authority, and the Redwood Regional Parks district be continued. However, the fire chief of the county fire district should review these contracts annually to assure that program benefits and service levels are maintained. The contract with Pleasanton should be amended to require that fire prevention, public education and fire investigation services are provided by the city of Pleasanton in the contract areas.

EMERGENCY MEDICAL SERVICES

GOAL: To minimize injuries and fatalities related to emergency medical incidents by providing rescue and basic life support (BLS) services.

It is recommended that the fire district initially continue to participate in the county EMS program at the EMT-1D level.

It is recommended that the fire district be provided with periodic reports by the county EMS agency which identify the service levels provided to each area served by the district.

It is recommended that specific procedures be established and strictly maintained which:

- o Provide an infectious disease monitoring system to advise all firefighters of exposure to infectious diseases as soon as that information is available, and
- o A decontamination procedure for victims of Haz Mat exposures to be implemented by health care providers and facilities treating the victims.

HAZARDOUS MATERIALS

GOAL: To reduce the risks to persons and the environment due to hazardous materials (Haz Mat) incidents related to the production, storage, use or transportation of Haz Mats within the unincorporated areas of the county through the enforcement of safety codes and the maintenance of incident scene management capabilities.

10

It is recommended that the fire district assume the responsibility for hazardous materials code enforcement regarding all storage and reporting of hazardous materials as required by local, state and federal regulations. This code enforcement program would be integrated with the fire code enforcement program.

It is recommended that fees for Haz Mat code enforcement be provided to the district to fully offset the cost of this code enforcement. This funding may be provided by a new fee system or the transfer of existing fees.

It is recommended that the fire district participate in the two joint powers Haz Mat response team programs being developed within Southern Zone and the Twin Valley areas of the county, within nine months. Funding and resources currently assigned to the county health department for response to emergency incidents should be transferred to the fire district or the joint powers response team programs.

TRAINING

GOAL: To recruit, develop and maintain personnel with the knowledge and skills to attain the goals and objectives of the fire protection system and to assist fire district personnel in attaining their career goals.

It is recommended that one additional training officer be provided on a forty-hour week schedule to meet the increasing training demands.

It is recommended that a training center be constructed in year five.

APPARATUS MAINTENANCE AND REPLACEMENT

GOAL: To provide adequate and reliable apparatus to meet the needs of the fire protection system through efficient and effective maintenance and replacement programs.

It is recommended that a scheduled apparatus replacement program be implemented which includes: replacement standards, a data system to monitor replacement criteria and a funding mechanism, based upon five year lease-purchase agreements. (See Table 61 for recommended 10 year capital improvement expenditures.)

It is recommended that one engine and patrol unit be replaced in the 1991/92 as the first step in a scheduled replacement program.

It is recommended that the two engines operated by CFP be placed out of service and one of the reserve engines be placed in service at the Livermore facility until the new Crow Canyon station and new engine are available.

It is recommended that a policy be established to maintain one reserve engine for each three engines in service. A reserve truck should be provided through a regional agreement between fire protection agencies. Reserve units will not be maintained for squad or patrol apparatus.

COMMUNICATIONS AND DISPATCHING

GOAL: To provide timely and accurate notification of emergency incidents to the fire districts and to provide information and support related to emergency and routine operations.

It is recommended that the fire department communications and dispatch operations be consolidated into one or more regional communications centers which are dedicated to fire department operations. These consolidated centers should serve both city fire departments and the fire districts.

RECOMMENDED FIXED ASSET EXPENDITURES

1991/92 to 2000/01

YEAR	FIRE STATION (1)	FIRE STATIONS (2)	TRAINING CENTER (3)	ENGINES (4)	SQUADS (5)	PATROLS (5)	TOTAL
1991/92				50,000		\$12,000	\$62,000
1992/93	\$70,000			100,000	\$12,000	12,000	194,000
1993/94	70,000	\$500,000		150,000	12,000	12,000	944,000
1994/95	70,000	500,000		250,000	24,000	12,000	1,056,000
1995/96	70,000	500,000		350,000	24,000	24,000	1,168,000
1996/97	70,000	500,000	150,000	400,000	24,000	12,000	1,356,000
1997/98		500,000	150,000	450,000	12,000	24,000	1,336,000
1998/99			150,000	500,000	12,000	24,000	686,000
1999/00			150,000	500,000		24,000	674,000
2000/01			150,000	500,000		12,000	662,000

(1) Crow Canyon station site:

Fire station funded through the sale of the CFP station in Livermore.

(2) ECFPD

Fire Stations #1 & #3 - \$2,500,000 w/ 5 yr. financing @ \$500,000/yr

(3) Training center - \$750,000 w/ 5 yr. financing

(4) Estimated cost of engines - \$250,000 each, w/ 5 yr. financing

(5) Estimated cost of squads and patrols - \$60,000, w/ 5 yr. financing

It is recommended that a detailed analysis of the services and costs of apparatus maintenance provided by the county maintenance facility and the private contractor currently used by some districts be conducted. The program which provides the highest level of service should be selected.

It is recommended that the engine assigned to the CDF Sunol station be outfitted and maintained with a standard complement of fire fighting and rescue equipment, by the county as part of the contract with CDF.

FACILITIES

GOAL: Fire district facilities will be constructed and located to enable the districts to provide efficient and effective programs in order to provide maximum longevity of facilities, minimal repair costs, a pleasing appearance and an effective and efficient environment for employees and citizens.

It is recommended that property for a new fire station be acquired in the Crow Canyon area. Two alternative station configurations should be considered.

The first alternative station would be a permanent station with facilities adequate to house two engine companies and one reserve apparatus. The facility would also include a meeting/training room to meet needs of district and to serve as a community contact and disaster control facility. The site for this station should be a minimum of one acre. This facility could be co-located with a training center if property is available and the use is compatible with the area.

The second alternative station would be a single family dwelling with an expanded garage which is capable of housing one engine and a squad or patrol unit. This facility would be provided with an emergency generator and small fuel storage unit but would not have the capacity to serve a community disaster control facility. This station would be considered to a temporary facility. The site for this facility should be a minimum of one-half acre.

It is recommended that two ECFPD stations (#1 and #3) be relocated at new sites in the general vicinity of the current stations. The estimated cost of land and construction is \$2,500,000.

It is recommended that the current CFP operations in Livermore be discontinued and the facility be sold. The resulting funds would be used for the purchase of a station site in Crow Canyon or to offset the costs of a training center facility, once a contractual agreement for emergency responses in the north-eastern areas of the county has been implemented.

It is recommended that the practice of fire station maintenance and janitorial services by fire department personnel be evaluated. It may be more cost effective to provide contract janitorial services to provide additional time for personnel to accomplish fire protection, EMS or Haz Mat programs.

It is recommended that fire stations be equipped to operate independently during disaster recovery periods. Since fire stations will become neighborhood contact points for citizens in the unincorporated areas of the county during disasters the district should be prepared to meet these needs. This will require upgrading emergency fuel, electrical power and emergency medical supplies at each station. Fire stations should be prepared to provide services and/or direct citizens to the appropriate agency or location in non-emergency and disaster operations. Safety education programs for citizens which develop "self-help" capabilities are an important part of this process.

It is recommended that the district develop a long range fire station construction and replacement plan for submittal to the board of supervisors within 12 months to meet the perceived need for fire station expansions, remodeling and/or relocations.

DISASTER PLANNING

GOAL: The County of Alameda fire districts shall maintain a capability to mitigate the results of a major emergency or disaster through the most efficient and effective coordination of county, state and federal resources.

It is recommended that the district maintain a multi-risk disaster plan in conjunction with the County of Alameda Multi-Hazard Functional Plan. The district should actively participate in plan development through membership on the Multi-Hazard Functional Plan Team and through participation in periodic scheduled multiple agency exercises as coordinated by the Alameda County Office of Emergency Services.

It is recommended that the district participate in periodic major emergency management exercises in conjunction with other fire agencies to maintain an effective local and regional incident command system (ICS).

It is recommended that the district in conjunction with the Alameda County Office of Emergency Services, develop a program of "self-help training" for county residents and businesses with primary emphasis placed upon the fire and EMS implications of earthquakes and wildland fires.

OTHER AGENCY COORDINATION

GOAL Effective working relationships and procedures should be maintained between the fire districts and other agencies which have a significant impact upon fire district programs.

It is recommended that the fire district establish and maintain coordination with those public and private agencies which impact the abilities of the district to provide services. The results of these efforts should be written operational procedures which are regularly reviewed and validated.

ALAMEDA COUNTY FIRE PROTECTION MASTER PLAN

VOLUME I SERVICE LEVEL STANDARDS REQUIREMENTS, ALTERNATIVES AND RECOMMENDATIONS

JANUARY 1992

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ALAMEDA COUNTY
FIRE PROTECTION MASTER PLAN

TASK 3
GOALS AND OBJECTIVES
(SERVICE LEVEL STANDARDS)

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INTRODUCTION

Goals and objectives for the Alameda County fire protection system are developed and adopted in order to establish public policy regarding the levels of service which will be provided in the unincorporated areas of the county and the risks which are considered acceptable.

The difference between the potential risks faced by the county and the levels of service provided constitute the "acceptable risk" which the county is willing to accept. It is unrealistic to design a fire protection system which will eliminate all risks. The appropriate balance of safety, public service, potential risks, economic costs, social costs and political costs should be the end result of a master plan which is based upon effective goals and objectives.

The purpose of this Goals and Objectives phase is to establish proposed levels of service as defined by operational and management personnel. These goals and objectives will ultimately be submitted to the Board of Supervisors for adoption as public policy. The roles of the agencies which constitute the fire protection system are also identified with input and agreement from each agency.

MISSION STATEMENT:

The Mission Statement identifies the scope of services which the county desires to provide through the fire protection system.

GOALS:

Goals are intended to define the broad public policy regarding service levels and potential risks related to fire protection, emergency medical services (EMS) and hazardous materials (Haz Mats) controls.

OBJECTIVES:

Objectives identify the desired (measurable) results of programs needed to accomplish the goals which have been adopted by the county.

FIRE PROTECTION SYSTEM:

The Fire Protection System consists of those public and private agencies through which fire protection, EMS and Haz Mats services are delivered. Although the fire districts will take a lead role in the delivery of these services, the success of these programs is highly dependent upon the participation of all organizations within the Fire Protection System.

FIRE DISTRICTS:

All agencies providing fire protection services in the unincorporated areas of the county are referred to as fire districts within this report. This includes the County Fire Patrol, the O.E.S. fire department and the CDF/Sunol program.

MISSION STATEMENT

The County of Alameda fire protection system shall provide a fire protection program, emergency medical/rescue services and hazardous materials control services and disaster mitigation services in order to minimize the risks of injuries, fatalities and property losses within the unincorporated areas of the county.

FIRE PROTECTION GOAL

To minimize the risks of injuries, fatalities and property losses due to fire through efficient and effective fire protection programs.

FIRE PROTECTION MANAGEMENT OBJECTIVES:

- 1 - A county fire protection system will be established and maintained which defines the role of the public and private organizations which constitute the system. These roles will be jointly developed by each organization within one year after the master plan is completed.
- 2 - A current fire protection system master plan will be maintained through annual plan revisions.
- 3 - The annual proposed budget will include revised objectives which are consistent with and support the service levels established in the master plan.
- 4 - A management information system will be developed and maintained within one year which will provide the record system and reports necessary to evaluate and modify the fire protection system programs.
- 5 - Quarterly reports of progress regarding the fire protection system's attainment of goals and objectives will be provided to the boards of directors and the county administrator, with the initial reports provided within three months.
- 6 - A funding and service fee program will be developed within six months whereby those developments which produce a need for increased services will fund or mitigate the increased costs to the county.
- 7 - Career development and promotional criteria will be developed for each rank within the fire districts, based upon the State Certification Program within two years.
- 8 - The fire protection programs currently assigned to the county sheriff's department will be reorganized and administered by a fire protection agency which reports directly to the county administrator, within three months.
- 9 - The county fire protection system will develop and maintain the capability to effectively manage a large number of diverse resources in order to control emergencies and mitigate the results of disaster.
- 10 - The provisions of this plan will be implemented at all levels of the fire districts through a revised management system.

FIRE PREVENTION OBJECTIVES:

- 1 - The most recent edition of the Uniform Fire Code will be reviewed and recommended for adoption with the necessary amendments to meet local needs within six months of publication.
- 2 - Plan review and construction site ^{*7.2.3} inspections of all new developments will be conducted to assure compliance with fire code, Title 19 and Title 24 (1), requirements prior to the issuance of building permits and certificates of occupancy.
- 3 - All new occupancies shall comply with fire code and Haz Mats control regulations, including Haz Mat business plans, prior to the issuance of a certificate of occupancy. (See Building Department Objectives for proposed certificate of occupancy requirements for all occupancy changes.)
- 4 - Each multi-family, commercial and industrial occupancy will be inspected at a frequency required to maintain compliance with fire code requirements:
 - o all occupancies at least annually
 - o high hazard occupancies at least semi-annually
- 5 - All automatic fire detection and extinguishing systems will be inspected and tested annually.
- 6 - Automatic fire detection and extinguishing system failures will not occur as a result of the failure to provide preventive maintenance and testing.
- 7 - A fire hazard citation program will be implemented within one year.
- 8 - A building code amendment will be developed in conjunction with the building department within one year which will require the installation of automatic sprinklers in all new structures with a floor area in excess of 1,000 square feet.
- 9 - A building code amendment will be developed in conjunction with the building department within one year which requires the installation of Class A or Class B roofing in all new or reroofing construction in Fire Zone 4 and a minimum of Class C in all other unincorporated areas of the county.

(1) California Administrative Code

- 10 - Standard code flexibilities which are applicable to the installation of automatic fire extinguishing systems and their related cost benefits to developers will be identified within six months.
- 11 - A "one-stop" plan check and permit program will be established within one year in conjunction with the Building Department, Planning Department and Public Works Department.
- 12 - A fuel modification plan and wildland interface fire control plan will be implemented within one year in the wildland interface areas in order to mitigate the fire risks within those areas. This program will be coordinated with CDF's "Firesafe" and Public Resource Code programs.
- 13 - A system of fees for service will be developed which provides funding for fire code and Haz Mats controls enforcement programs required for all residential, commercial and industrial occupancy construction and operations.

FIRE SAFETY EDUCATION OBJECTIVES:

- 1 - A comprehensive fire safety education program which will increase fire safety awareness and activities within all segments of the community will be developed and maintained within 24 months.
- 2 - A fire safety education program will be prepared for adoption by the education system (K-12) within 24 months.
- 3 - A program will be developed and provided to commercial and industrial occupancies within 36 months to assist them in preparing and maintaining fire safety and disaster preparedness plans.
- 4 - A rural self-help safety education program will be developed and implemented within twelve months. This program will include safety audits of dwellings, training in fire prevention, EMS and Haz Mats, and retrofit programs for residential sprinklers.

FIRE SUPPRESSION OBJECTIVES:

- 1 - "First alarm" resources (personnel and apparatus) will be maintained which are necessary to deliver the fire flow required for each type of structure based upon building construction type, occupancy class and built-in fire protection.

- 2 - The first engine will arrive at the scene of 95 percent of fire incidents within five minutes (total travel time) in central business districts, urban and suburban areas, with a minimum of three personnel.
- 3 - The first engine will arrive at the scene of 95 percent of fire incidents within 10 minutes (total travel time) in rural areas.
- 4 - In areas which are more than a 5 minute response time from a fire station the primary method of providing fire suppression services for new and existing structures will be via automatic fire sprinklers, smoke detectors, fire retardant roofing and other self-help fire mitigation measures, with support from fire district suppression personnel.
- 5 - All fire suppression resources required as a "first alarm assignment" will arrive within 10 minutes at 95 percent of fire incidents in central business districts, urban and suburban areas and within 15 minutes in rural areas at 90 percent of fire incidents.

The total fire suppression resources (personnel and apparatus) required is based upon the "fire flow" requirements of each type of structure and occupancy. (See Appendix A for Fire Flow and Personnel Requirements).

- 6 - Effective mutual aid and automatic aid programs will be maintained with neighboring agencies to provide added fire suppression resources needed to cope with multiple or major fire incidents.

FIRE INVESTIGATION OBJECTIVES:

- 1 - The cause of all fires will be investigated and a California Fire Incident Report (CFIRS) will be completed.
- 2 - All suspicious or incendiary fires will be investigated by personnel with special skills in arson investigation and prosecution.
- 3 - The county-wide Fire Investigation Team program will be maintained with participation of all fire districts.

EMERGENCY MEDICAL/RESCUE SERVICES GOAL:

To minimize injuries and fatalities related to emergency medical incidents by providing rescue, and basic life support (BLS) services.

EMERGENCY MEDICAL OBJECTIVES:

- 1 - A district unit with personnel trained at the BLS level will arrive at 95 percent of emergency medical calls within five minutes (travel time) of receipt of call for assistance in urban and suburban areas. In rural areas the first district unit will arrive within 10 minutes at 90 percent of the EMS incidents.
- 2 - The district personnel will provide support to the ALS (advanced life support) ambulance units which will arrive at 95 percent of emergency medical calls within response times established by the county EMS department.
- 3 - All First Responder firefighters, engineers, and captains will maintain an EMT-ID certification. All other fire district employees will maintain an Advanced First Aid certification within 8 months.
- 4 - A heavy rescue capability will be developed and maintained within 36 months which will include disaster response capabilities.
- 5 - A multi-casualty medical emergency disaster operations plan will be developed within 18 months. The plan will be exercised at least annually. This plan will include the coordination of multiple agencies and a definition of the fire districts' "heavy rescue" capability and responsibility.
- 6 - A computerized management information system will be maintained to record emergency medical activities and to facilitate the analysis of program effectiveness and efficiency within one year.

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HAZARDOUS MATERIALS CONTROL GOAL:

To reduce the risks to persons and the environment due to Haz Mat incidents related to the production, storage, use or transportation of hazardous materials within the unincorporated areas of the county through the enforcement of safety codes and the maintenance of incident scene management capabilities.

HAZARDOUS MATERIALS CONTROL OBJECTIVES;

The requirements of county ordinances, state regulations and federal laws related to hazardous materials controls will be implemented to meet the schedules established by those laws and regulations, which will include:

1. The Alameda County fire districts, will develop a Haz Mat incident control plan within 18 months. This plan will be exercised at least annually.
2. All personnel will be trained and be certified at the Haz Mat "Operational level" within nine months.
3. A Haz Mat response team with personnel trained at the Technician level with equipment required to perform incident mitigation will arrive at 95% of Haz Mat incidents within fifteen minutes of notification by a fire district, 24 hours/day.
4. All occupancies requiring HAZ MAT business plans will be inspected annually for code compliance and reissuance of permits.
- 5 - A permit fee system which will fully fund the Haz Mat inspection will be implemented within 6 months.
- 6 - An approved hazardous materials business plan will be a requirement for the issuance of certificates of occupancy within eighteen months. (See Building Department section)
- 7 - Industrial and commercial occupancies which must report hazardous materials under the provisions of county, state, or federal regulations shall do so through a computerized program being developed and provided by the County Environmental Health Department, Haz Mat Division within 8 months.
- 8 - Fire district personnel shall be provided with Haz Mat data required to perform fire prevention and incident control operations.
- 9 - A procedure will be established for hospitals and ambulance agencies to assure that decontamination programs are developed and maintained by health care providers.

TRAINING AND PERSONNEL DEVELOPMENT GOAL

To recruit, develop and maintain personnel with the knowledge and skills to attain the goals and objectives of the fire protection system and to assist fire district personnel in attaining their career goals.

TRAINING AND PERSONNEL DEVELOPMENT OBJECTIVES:

- 1 - Establish minimum levels of knowledge and skills for entry level personnel within one year in order to reduce the responsibility and cost of initial training.
- 2 - Develop and implement a program within 18 months which is designed to meet the affirmative action goals of the county.
- 3 - Establish minimum training and education requirements for promotion to all ranks, within three years, based upon the State Board of Fire Services Certification Program and modified to meet local needs.
- 4 - Develop and implement a program of skill maintenance training required for all ranks within the fire districts within six months.
- 5 - Provide the training needed to maintain EMT-1D certification for all volunteers and career, firefighters, engineers and captains and advanced first aid certification for all other department employees.
- 6 - Provide the training needed to maintain the required Haz Mat training for all personnel at the Haz Mat Operations level and Haz Mat Technician level for selected personnel.
- 7 - Develop and maintain a training program to meet the state drivers license training and certification requirements within 6 months.
- 8 - Certified instructors will be available within the districts to provide the training needed to maintain certification in EMT-1D, Haz Mat Operations and state drivers license requirements.
- 9 - All personnel of the rank of captain or higher shall be trained and certified as an instructor under the State Board of Fire Services Certification program within three years.

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- 10 - Training facilities will be identified or provided within three years which will enable the fire districts to effectively conduct:
 - o Multiple company training evolutions,
 - o Large volume water flow drills,
 - o Hose lay operations,
 - o Ladder training,
 - o Multiple story structure fire training and
 - o Fire control "drill fires" in structures and flammable liquid installations, and
 - o Haz Mat spill control procedures.
 - 11 - An automated record and evaluation system will be developed within six months, which will be available to all districts, to schedule, record and evaluate training/educational activities.
 - 12 - An accident prevention and physical fitness program will be developed and implemented for all district personnel which includes minimum standards of physical fitness within three years.
 - 13 - An evaluation of the feasibility and benefits of participating in the California Firefighter Joint Apprenticeship Program will be completed within one year.
 - 14 - Develop and deliver a program within one year which will provide initial training for new communications center dispatchers and coordinate skill maintenance training related to fire district operations.
 - 15 - Develop and deliver a program within one year which will provide initial training for new deputy sheriffs, regarding fire district operations.

APPARATUS MAINTENANCE AND REPLACEMENT GOAL

Adequate and reliable apparatus will be provided to meet the needs of the fire protection system through efficient and effective maintenance and replacement programs.

APPARATUS MAINTENANCE AND REPLACEMENT OBJECTIVES:

- 1- No apparatus and equipment failures during emergency responses will occur as a result of the failure to provide scheduled preventive maintenance.
- 2- All apparatus and equipment will receive scheduled preventive maintenance:
 - o first-line engines, squad and trucks - every six months
 - o all other apparatus - every 12 months
 - o on-board vehicle equipment - according to a schedule established for each piece of equipment
 - o staff cars including B/C van - every 5,000 miles

A program of daily, weekly, monthly and annual inspections and tests will be conduct by apparatus operators.

- 3- An apparatus and vehicle replacement schedule will be established within six months, based upon years in service and modified for experience related to:
 - o Down-time (scheduled and unscheduled)
 - o Operational/maintenance costs
 - o Operational adequacy

The baseline years in service related to apparatus replacement are:

APPARATUS	YEARS 1st LINE	YEARS RESERVE
Engine	15	10
Truck	20	10
Squad	15	n/a
Staff Vehicles	5 (or 50k mi.)	n/a

- 4 - An automated maintenance record system will be implemented which provides the information required to manage maintenance and replacement programs.
- 5 - Mechanics providing fire apparatus maintenance shall be certified Fire Apparatus Mechanics under the State Board of Fire Services Certification program.

FIRE DISTRICT FACILITIES GOAL

Fire district facilities will be constructed and located to enable the districts to provide efficient and effective services. These structures will be maintained through cost effective programs in order to provide maximum longevity of facilities, minimal repair costs, a pleasing appearance and an effective and efficient environment for employees and citizens.

FIRE DISTRICT FACILITIES OBJECTIVES:

- 1 - A long range fire station location plan will be maintained which provides the most efficient and effective use of fire district and mutual aid/automatic aid units for response to fire, EMS/rescue and Haz Mats incidents.
- 2 - All fire stations shall be constructed to withstand anticipated natural disasters and to operate as regional disaster facilities in disaster recovery operations. This will include a high level of earthquake resistance. Facilities to be provided include fuel supplies, full electrical power, communications equipment and emergency medical equipment/supplies which are sufficient to maintain operations for 72 hours. Existing facilities shall be upgraded to meet the established standards within five years.
- 3 - Major repairs shall not be required to structures or building systems due to a failure to provide established preventive maintenance.
- 4 - An optimum preventive maintenance program for fire district facilities will be identified within twelve months.
- 5 - The preventive maintenance program will be implemented within sixteen months utilizing the most cost-effective program available.
- 6 - A record and evaluation system will be established to identify the maintenance activities and costs related to each fire district facility which includes quarterly reports and program analysis.
- 7 - All new facilities plans should be analyzed for maximum maintenance efficiency prior to final approval.

DISASTER PLANNING GOAL

The County of Alameda fire districts shall maintain a capability to mitigate the results of a major emergency or disaster through the most efficient and effective coordination of county, state and federal resources.

DISASTER PLANNING OBJECTIVES:

- 1 - The fire districts will develop and maintain a multiple risk/disaster response program within 24 months utilizing the organizational concepts contained in the Incident Command System (ICS) and the Integrated Emergency Management System (IEMS).
- 2 - The disaster plan will be developed in cooperation with the county which will contain sub-elements which specifically relate to earthquakes, conflagrations, mass casualty incidents, civil disturbances, hazardous materials exposures and major evacuations, within 36 months.
- 3- A disaster plan exercise will be conducted at least annually in conjunction with county departments and agencies with major responsibilities.
- 4- Multiple risk disaster exercises will be conducted with neighboring fire protection, EMS, Haz Mat agencies and county communications at least twice per year to maintain regional disaster and ICS (Incident Command System) procedures.
- 5- Fire district representatives will be assigned to the emergency operations center when that center is activated. A procedure to accomplish this will be implemented within three months.
- 6- An educational program will be developed and presented with emphasis upon commercial, industrial and rural residential occupants to encourage individual disaster preplanning and self help disaster response activities within 36 months.
- 7 - The risk of conflagrations will be reduced through the implementation of county-wide fire retardant roofing ordinance (See Building Department and Fire Prevention Sections) and wildland interface fire control measures (See Fire Prevention Section).

OTHER FIRE PROTECTION SYSTEM GOALS AND OBJECTIVES

This section identifies the recommended goals and objectives of other agencies which are major components of the county fire protection system. These recommended goals and objectives have been identified in order to clarify expectations and obtain commitments from those agencies who play a major role in the delivery of fire protection and the health and safety services within the unincorporated areas of the county. These agencies are:

- o County Communications Department
- o Building Department
- o Planning Department
- o County Environmental Health Department - EMS Division
- o County Environmental Health Department - Haz Mat Division
- o Public Works (Streets and Transportation) Department
- o Sheriffs Department
- o Private Paramedic Service Provider
- o Educational System (K-12)
- o Water Companies
- o County Finance Department

COUNTY COMMUNICATIONS GOAL

To provide timely and accurate notification of emergency incidents to the fire districts and to provide information and support related to emergency and routine operations.

COMMUNICATIONS AND DISPATCH OBJECTIVES:

- 1- Ninety-five percent of incoming emergency calls (911) will be answered within 10 seconds.
- 2- The dispatcher will commence notification of the fire district units within 30 seconds after receipt of emergency dispatch information for 95 percent of incidents.
- 3- The dispatcher will respond to 95 percent of the radio communications from fire district units within five seconds.
- 4- The dispatch center shall maintain a capability to process two simultaneous fire incidents within established performance standards.
- 5- The dispatch center shall maintain the capability to implement the procedures related to a "multiple alarm" or major incident within five minutes.
- 6- Operational procedures shall be developed and administered by a committee of operational managers from agencies served by the dispatch center.
- 7- All new dispatchers shall receive training regarding fire district procedures and operations prior to assignment to dispatch duties. The training will be provided by fire district personnel.
- 8- Skill maintenance training shall be provided for all dispatchers to maintain dispatch standard performance related to fire district operations, with emphasis upon multiple alarm incidents.
- 9- The dispatch center shall maintain accurate data in an automated format related to street addresses, map grids, fire district operational procedures, mutual aid/auto aid procedures, and emergency resource lists.
- 10- The dispatch center shall maintain records of all dispatch operations, including dispatch time performance related to the established standards and shall provide a monthly report of dispatch operations to all agencies served by the center.

- 11- The dispatch center shall collect and provide to incident commanders the incident data needed to complete the required CFIRS (California Fire Incident Reporting System) reports.
- 12 - A capability shall be developed and maintained within the dispatch operations to provide life saving instructions to persons reporting EMS incidents and to screen EMS calls as needed with one year.
- 13 - The county communications department will provide technical support and recommendations to fire districts related to the design, purchase and maintenance of communications systems and equipment.

BUILDING DEPARTMENT - FIRE PROTECTION GOAL

All structures will be constructed and maintained in compliance with building codes and standards required by the County of Alameda to minimize risk to life and property due to fire.

BUILDING DEPARTMENT - FIRE PROTECTION OBJECTIVES:

- 1 - The most current edition of the Uniform Building Code will be adopted, with amendments to meet the specific needs of the county, within six months of publications.
- 2 - Building construction plans will be made available to fire districts for review and approval prior to building department approval of plans or the issuance of a building permit through a procedure jointly developed by the Building Department and the fire districts.
- 3 - The Building Department will provide office facilities for use by fire districts to conduct plan reviews within 60 days of completion of the plan review procedure.
- 4 - Fire district approval will be a condition of final approval of construction and the issuance of an occupancy certificate.
- 5 - A building code change will be made within one year which requires a certificate of occupancy for each new occupancy or occupancy change, contingent upon inspections and approvals by the building department and fire department.
- 6 - Where required, an approved HAZ MAT business plan must be provided as a condition for each certificate of occupancy, within 18 months.
- 7 - A "one-stop" plan review and permit program will be implemented within six months which includes the fire districts with the Building, Planning, and Public Works departments.
- 8 - Amendments to the building code will be developed in conjunction with the fire districts within six months which will require fire retardant roofing in all new and reroofing construction and automatic fire sprinklers in all new structures with floor areas in excess of 1,000 square feet. (See Fire Prevention Section).
- 9 - A program will be implemented within nine months to maintain coordination between building and fire district personnel which results in continued mutual understanding and support of Building and Fire Code enforcement.

PLANNING DEPARTMENT - FIRE PROTECTION GOAL

All new developments will be designed to minimize risks to life and property through the implementation of the provisions of this fire protection master plan.

PLANNING DEPARTMENT - FIRE PROTECTION OBJECTIVES:

- 1 - The Alameda County General Plan Safety Element will be revised within one year to include the relevant provisions of this Fire Protection Master Plan.
- 2- The fire districts will review all proposed projects at the earliest planning stages to assure that the fire protection and Haz Mat requirements are adequately considered in each project design.
- 3- Fire protection impacts and requirements shall be identified and mitigated in all proposed annexations, developments and zoning changes prior to approval.
- 4- The Planning Department will provide the fire districts with the most recent zoning data and maps.

COUNTY OFFICE OF EMERGENCY MEDICAL SERVICES - FIRE DISTRICT SUPPORT GOAL

The County Office of Emergency Medical Services will provide training, equipment and other support services to assist fire districts in maintaining effective BLS emergency medical services at the EMT-1D level within the unincorporated areas of Alameda County.

COUNTY EMS - FIRE DISTRICT SUPPORT OBJECTIVES

- 1 - Provide early defibrillation training and equipment to fire districts.
- 2 - Provide the training necessary for the districts to maintain personnel certified as EMT-1Ds.
- 3 - Maintain effective coordination between the ALS provider and the fire districts.
- 4 - Provide self-help EMS training to citizens of Alameda County with emphasis upon the rural areas.
- 5 - Coordinate the implementation of an EMD (emergency medical dispatch) program with the communications division.
- 6 - Provide the fire districts with quarterly reports of the response activities of the private ALS provider which include: activity locations, incident types, and response times.
- 7 - Coordinate the reimbursement program to fire districts for EMS operations, as specified in Appendix L.
- 8 - Procedures should be implemented to assure that the notification of fire district personnel who are exposed to infectious diseases is accomplished promptly, accurately and consistently.

COUNTY HAZARDOUS MATERIALS DIVISION - FIRE PROTECTION SUPPORT GOALS

The county Haz Mat Division will be the responsible agency for the implementation of required county, state and federal Haz Mat control programs. The division will provide technical support to the fire districts in the control of Haz Mat risks and incidents.

COUNTY HAZ MAT DIVISION - FIRE PROTECTION SUPPORT OBJECTIVES

- 1 - The county Haz Mat Division will coordinate the development and recording of all require hazardous materials management plans (HMMPs).
- 2 - The Haz Mat division will annually inspect all occupancies which are required to maintain HMMPs to assure compliance with storage and handling requirements of Haz Mats.
- 3 - The Haz Mat division will notify all fire district of Haz Mat storage and operations within their district. HMMPs will be provided via a computerized information network established and maintained by the Haz Mat division. The Haz Mat division will also notify the districts significant risks related to non-compliance with regulations.
- 4 - The Haz Mat division will provide a Haz Mat incident response unit at 95% of reported Haz Mat incidents within 15 minutes of request for assistance by a fire district.
- 5 - The Haz Mat units will be staffed a minimum of two personnel trained and certified as the Haz Mat Technicians and Haz Mat Incident Commanders within 12 months.
- 6 - The Haz Mat units shall be equipped to support the anticipated analysis and mitigation actions required to minimize risks to persons, property and environment within 9 months.
- 7 - The Haz Mat division will provide dispatch and coordination functions related to private sector Haz mat and waste disposal agencies.
- 8 - Decontamination procedures will be developed for implementation by hospitals, ambulance companies and other heath care providers within 6 months.

PUBLIC WORKS - FIRE PROTECTION GOAL

To provide and maintain a street system which will accommodate the delivery of fire protection/EMS services and to provide resources to cope with major emergencies.

PUBLIC WORKS - FIRE PROTECTION OBJECTIVES:

- 1 - The requirements of fire protection/EMS services will be identified and integrated into street design standards within one year which include:
 - o Street widths
 - o Lengths of cul-de-sacs
 - o Maximum street grades
 - o Maximum angles of departure, and
 - o Design of street and bridges to accommodate the weight of fire apparatus.
- 2 - A system of signal light control by emergency vehicles will be jointly evaluated by the Public Works Department and the fire districts as part of an analysis of emergency vehicle response related to high volume traffic areas and periods, as well as, traffic flow restrictions within 12 months.
- 3 - The designation of street names and numbering will be coordinated with the Sheriff's department and fire districts.
- 4 - The Public Works Department will provide support to the fire districts during major emergencies upon request by providing resources such as:
 - o Heavy equipment, i.e.: dozers, loaders, trucks, etc.
 - o Sand and landfill materials
 - o Barricades for street closures
- 5 - The Public Works Department will provide the fire districts with the most current editions of storm drain maps.

SHERIFF'S DEPARTMENT - FIRE PROTECTION GOAL

To provide support to the fire districts in fire protection, EMS and Haz Mat incidents through reporting of incidents, crowd/traffic control, evacuations and criminal investigations and prosecutions.

SHERIFF'S DEPARTMENT - FIRE PROTECTION OBJECTIVES:

- 1 - Sheriff's deputies on patrol will report to the dispatch center any hazardous conditions related to fire safety or hazardous materials controls in addition to reporting all fire, hazardous materials spills and emergency medical incidents.
- 2 - The Sheriff's Department will provide crowd control and traffic control at the scene of emergency incidents.
- 3 - The Sheriff's Department will coordinate the evacuation of persons exposed to injury from emergency incidents or disasters.
- 4 - The Sheriff's Department will assist the Fire Department in the investigation and prosecution of suspicious or incendiary fires.
- 5 - The Sheriff's Department will maintain a fire protection program at the Santa Rita jail which includes the maintenance of the built-in fire protection systems, emergency operations procedures and a contract for fire suppression services with the Dougherty Fire Authority.
- 6 - The initial training of new deputies will include a description of fire district operations and coordination provided in part by a fire district representative.
- 7 - Maintain an emergency operations center program which includes the participation of county fire districts.

PRIVATE PARAMEDIC SERVICE PROVIDER - EMS GOAL

The local paramedic service provider shall provide Advanced Life Support (ALS) services to the unincorporated areas of Alameda County and maintain cooperative relationships and programs with fire districts which provide supporting BLS services.

PRIVATE PARAMEDIC SERVICE PROVIDER - EMS OBJECTIVES:

- 1 - An ALS unit will arrive at 95 percent of the emergency medical calls within 8 minutes of notification in urban and suburban areas.
- 2 - An ALS unit will arrive at incidents outside urban and suburban areas within time frames established by the County EMS Division.
- 3 - Fire district personnel who accompany the ALS unit to a medical facility shall be returned to the assigned district station within 30 minutes in the eastern portion of the county and 20 minutes in the western portions of the county.

FIRE PROTECTION GOAL OF THE EDUCATIONAL SYSTEM

The educational system (K-12) will develop and maintain the fire safety awareness of K-12 students by integrating fire safety into the curriculum of all K-12 grades.

FIRE PROTECTION GOALS OF THE EDUCATIONAL SYSTEM:

- 1 - Each school district within the unincorporated areas of Alameda County will include fire safety education as an integral part of the curriculum of each grade level within two years.
- 2 - The fire districts will establish and maintain a resource library of fire safety education materials for use by the school districts within twelve months.
- 3- The fire districts will serve as a resource and support for the teachers in the provision of fire safety education.

WATER COMPANIES - FIRE PROTECTION GOAL

To provide an adequate and reliable source of water for automatic fire protection systems and the fire suppression operations of the fire districts.

WATER COMPANIES - FIRE PROTECTION OBJECTIVES:

- 1- All water system designs will include provisions for fire flow which meet established fire flow requirements.
- 2 - All new water system extensions or modifications in residential areas shall be designed to adequately supply residential sprinkler systems per NFPA standards 13, 13R or 13D as applicable.
- 3 - Minimum fire flow and fire hydrant installation standards will be developed and maintained in conjunction with the fire districts.
- 4 - A biennial fire hydrant and street valve testing and maintenance program will be conducted by the water company.
- 5 - Each water company will maintain records, available to fire districts which include: fire flow calculations, hydrant inventory, hydrant maintenance, and street valve maintenance.
- 6 - The water companies shall provide the fire district with the most current water system maps which include the following data:
 - o Water main sizes and locations
 - o Fire hydrant locations
 - o Street valve locations
 - o Pressure zones
 - o Fire flows
- 7 - Water company personnel will respond to major fire incidents in which their assistance is required for fire flow or water system management.
- 8 - The water companies and the fire districts will jointly develop, within six month, a set of guidelines related to the modification of required fire flows as a result of the installation of automatic fire sprinkler systems.
- 9 - The water companies will administer a schedule of fire flow service demand fees and water system connection fees (fire line charges) which encourages the installation of automatic fire sprinkler systems.

- 10 - Existing fire flow deficiencies will be partially corrected through the cooperative use of the Fire Hydrant and Fire Flow Improvement Fund.

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COUNTY GENERAL SERVICES AGENCY - FIRE PROTECTION GOALS

To provide support to the fire district through effective and efficient purchasing services.

COUNTY GENERAL SERVICES AGENCY - FIRE PROTECTION OBJECTIVES

1. Purchase orders will be processed within one week of receipt of purchase request from fire districts.
2. All invoices will be paid within 30 days.

APPENDICES

APPENDIX A - FIRE FLOW AND PERSONNEL RESPONSE STANDARDS

APPENDIX B - EMERGENCY MEDICAL RESPONSE STANDARDS

APPENDIX A - FIRE FLOW AND PERSONNEL REQUIREMENTS

The fire flow and personnel response requirements for each category of fire demand zone should be established as service levels. The recommended service level standards are listed below. Note that fire flow and personnel requirements are reduced where automatic fire sprinklers are provided.

LAND USE	GPM REQUIRED	PERSONNEL REQUIRED	
		@ 5 MIN.	@ 10 MIN.
Single Family Dwelling (Sprinklered or Rural)	500		3
Single Family Dwellings (Non-sprinklered)	1,000	3	10
Sprinklered Multi-family, Commercial and Industrial	1,250	3	10
Multi-family (low-density) Light Commercial (Non-Spr.)	1,500	3	15
Multi-family, Commercial, Light Industrial (Non-Spr.)	2,000	3	18
Multi-family (high density) Commercial PBD, Industrial (Non-Sprinklered)	3,500	3	24
High Hazard (Non-spr.)	4,000*	3	30
High Hazard (Non-spr.)	5,000*	3	36

* Based upon individual fire flow calculations.

APPENDIX B - EMERGENCY MEDICAL RESPONSE STANDARDS

Standards for emergency medical responses should be established. These standards should be developed in conjunction with the county emergency medical department and be consistent with the county-wide standards currently in place. A recommended standard which is consistent with general practice throughout the nation is :

SERVICE LEVEL	@ 5 min.	@ 10 min.
Basic Life Support	X	
EMS First Responder	X	
Emergency Medical Technician	X	
EMT-D	X	
Advance Life Support		X
EMT-II		X
Paramedic		X
Ambulance		X

**ALAMEDA COUNTY
FIRE PROTECTION MASTER PLAN**

**TASK 4
REQUIREMENTS, ACTION PLANS
AND ALTERNATIVES**

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TASK 4

INTRODUCTION

This task establishes action plans and identifies the resources required to attain the goals and objectives proposed in Task 3, with the current organizational structure. The resource requirements relate primarily to the personnel hours needed to implement the fire protection, emergency medical service and hazardous materials control programs. Equipment costs and capital improvements are also identified as are modified codes, ordinances and operational programs.

Personnel hours have been estimated as those hours needed per year to accomplish tasks unless otherwise noted. Since detailed data is not available for existing programs the estimates should be closely reviewed for accuracy. Data systems should be established to provide improved information regarding the resource requirements of programs as they are implemented.

The apparatus replacement schedule and requirements needed to meet established standards are listed in Tables 1 and 2.

The total number of personnel hours needed to accomplish the recommended goals and objectives are listed in Tables 3 to 14 for each program. The total personnel hours required for all programs are listed Table 15.

The primary resource change which would be required to meet the established service level standards are:

- o Construct and staff a fire station in the Crow Canyon area,
- o Increase the staffing at the CDF-Sunol station by adding one captain to the daily minimum staffing. This would require the revision of the current contract to provide three captains and the necessary overtime.
- o Add four additional training officers,
- o Add 2.4 deputy fire marshals,
- o Reallocated workloads between chiefs and deputy chiefs and between captains, engineers and firefighters.

The total estimated costs for expanding the current system to meet the service level standards (goals and objectives) are listed in Table 16.

Three additional alternative systems are analyzed in the Alternatives section of this task. All of these alternative systems meet the service levels standards with varying levels of resources and organizational structures.

FIRE PROTECTION MANAGEMENT REQUIREMENTS AND ACTION PLANS

1. A county fire protection system will be established and maintained which defines the role of the public and private organizations which constitute the system. These roles will be jointly developed by each organization within one year after the master plan is completed.

The fire chief will coordinate these activities which are defined in the final sections of this report and in Task 3. This will include management level meetings and committees with other county and city agencies, with an anticipated time allocation of one day per week.

Fire Chief: 416 hrs/yr.
Clerical: 16 hrs/yr.

2. A current fire protection system master plan will be maintained through annual plan revisions.

The programs established through this plan will be integrated into the budget to specifically identify the programs and results which are to be funded. The master plan will also be revised when changes to the general plan impact fire protection.

Fire Chief: 16 hrs/yr.
Deputy Chief (CVFPD, ECFPD): 4 hrs/yr.
Asst. Chief (OES): 4 hrs/yr.
Captain (CFP, FFPD, OES): 8 hrs/yr.
Lieutenant (OES): 8 hrs/yr.
Clerical: 24 hrs/yr.

3. The annual proposed budget will include revised objectives which are consistent with and support the service levels established in the master plan. It is estimated that each officer will devote one half-day to a revision of the objectives assigned to that officer and one-half day to a review of objectives of those reporting to the officer and one-half day for review with the person to whom the officer reports.

Fire Chief: 16 hrs/yr.
Deputy Chief: 12 hrs/yr.
Asst. Chief (OES): 12 hrs./yr.
Fire Marshal: 12 hrs/yr.
Battalion Chief: 12 hrs/yr.
Training Officer: 12 hrs/yr.
Captain: 12 hrs/yr.
Lieutenant (OES): 12 hrs/yr.
Clerical: 40 hrs/yr.

4. A management information system will be developed and maintained within one year which will provide the record system and reports necessary to manage, evaluate and modify the fire protection system programs.

A training program in the use of the new software will be conducted by the contractor providing the data system.

Fire Chief: 8 hrs.
Deputy Chief: 4 hrs.
Asst. Chief (OES): 4 hrs.
Fire Marshal: 4 hrs.
Battalion Chief: 4 hrs.
Training Officer: 4 hrs.
Deputy Fire Marshal: 4 hrs.
Captain: 4 hrs.
Engineer: 4 hrs.
Firefighter (career): 4 hrs.
Clerical: 8 hrs.
Computer hardware and software per station: \$5,500
Computer operations training per district: \$1,200

5. Quarterly reports of progress regarding the fire protection systems attainment of goals and objectives will be provided to the boards of directors and the county administrator, with the initial reports provided within three months.

Fire Chief: 4 hrs./quarter
Fire Marshal: 2 hrs/quarter
Training Officer: 2 hrs/quarter
Clerical: 4 hrs./quarter

6. A funding and service fee program will be developed within six months whereby those developments which produce a need for increased services will fund or mitigate the increased costs of fire protection.

Fire Chief: 240 hrs.
Fire Marshal: 24 hrs.
Clerical: 16 hrs.

7. Career development and promotional criteria will be developed for each rank within the fire districts, based upon the State Certification Program, within two years.

Fire Chief: 12 hrs.
Deputy Chief: 4 hrs.
Fire Marshal: 4 hrs.
Battalion Chief: 4 hrs.
Training Officer: 40 hrs.
Clerical: 4 hrs.

8. The fire protection programs currently assigned to the county sheriff's department will be reorganized and administered by a fire protection agency which reports directly to the county administrator, within three months.

Fire Chief: 24 hrs.

Clerical: 8 hrs.

9. The county fire protection system will develop and maintain the capability to effectively manage a large number of diverse resources in order to control emergencies and mitigate the results of disasters. This will include establishing a policy of use of a standardized incident command system and conducting training to develop skills, within 3 months.

Fire Chief: 4 hrs.

Clerical: 1 hr.

(See Training Action Plan)

10. The provisions of this plan will be implemented at all levels of the fire districts through a revised management system.

Chief: 32 hrs/yr.

Deputy Chief: 24 hrs/yr.

Asst. Chief (OES): 24 hrs/yr.

Fire Marshal: 20 hrs/yr.

Training Officer: 8 hrs/yr.

Battalion Chief: 24 hrs/yr.

Deputy Fire Marshal: 4 hrs/yr.

Captain: 12 hrs/yr.

Lieutenant: 4 hrs/yr.

Engineer: 4 hrs/yr.

Firefighter: 4 hrs/yr.

Clerical: 32 hrs/yr.

11. The fire chief will conduct periodic staff meetings to coordinate management of the district programs. It is estimated that daily meetings will be held with the deputy chief and battalion chiefs at .5 hours per week day. Monthly staff meetings attended by the chief, division chiefs, battalion chiefs, fire marshal and training officers will be held at four hours per month. Quarterly meetings (four hours) will be held which will be attended by the chief, deputy chiefs, battalion chiefs, fire marshal, training officers and captains.

Total Meeting Hours/Year/Person

	Chief	D/C	B/C	FM	TO	CAPT
Daily	130	130	130	130		
Monthly	208	208	208	208	208	
Quarterly	16	16	16	16	16	16
Total	354	354	354	354	224	16

FIRE PREVENTION REQUIREMENTS AND ACTION PLANS

1. The most recent edition of the Uniform Fire Code will be reviewed and recommended for adoption with the necessary amendments to meet local needs within six months of publication.

Fire Chief: 4 hrs./every other year
 Fire Chief (CFP): 40 hrs. every other year
 Fire Marshal: 40 hrs. every other year
 Clerical: 16 hrs. every other year

2. Plan review and construction site inspections of all new developments will be conducted to assure compliance with fire code, Title 19 and Title 24 (1) requirements prior to the issuance of building permits and certificates of occupancy.

Detailed records of plan review and new construction workloads are not available. Data which defined the number of existing and projected occupancies for Castro Valley Fire Protection district were not available.

It is estimated that the annual new construction workload will require 490 hours per year for the Castro Valley Fire Protection District and the County Fire Patrol areas, and that 980 hours will be required in Eden Consolidated area. Twenty-five percent of this workload will be performed by the fire marshal and seventy-five percent by the deputy fire marshals.

Fire Chief: 104 hrs/yr.
 Fire Marshal (CVFPD, ECFPD): 490 hrs/yr.
 Deputy Fire Marshal: 1470 hrs/yr.
 Clerical: 500 hrs/yr.

3. All new occupancies shall comply with fire code and Haz Mats control regulations, including Haz Mat business Plans, prior to the issuance of a certificate of occupancy. (See Building Department objectives for proposed certificate of occupancy requirements for all occupancy changes.)

Fire Chief: 4 hrs.

Fire Marshal: 16 hrs.

4. Each Multi-family, commercial and industrial occupancy will be inspected at a frequency required to maintain compliance with fire code requirements. A deputy fire marshal will be assigned to provide training and technical support to the suppression division personnel for an estimated 830 hrs/yr. The deputy fire marshals will inspect 106 high hazard occupancies semi-annually. It is estimated that each high hazard occupancy will require three hours to inspect (740 hours per year). The suppression division will inspect 2,530 occupancies with time estimated at one hour for initial inspection and thirty minutes per reinspection.

Time allocations are based upon inspection records being entered in an automated data system by the inspecting officer with the clerical devoting two hours per day to retrieving and maintaining the occupancy files and scheduling appointments.

Deputy Fire Marshal: 1,570 hrs/yr. (all districts)

Fire Captain: 3,795 hrs/yr. (all districts)

Engineer: 3,795 hrs/yr. (all districts)

Firefighter: 3,795 hrs/yr. (all districts)

Clerical: 520 hrs/yr.

5. A program will be developed and implemented to assure that the required testing and maintenance of automatic fire protection systems are conducted including a reporting system through which the fire department can assure compliance. This program will be in place within one year.

Fire Chief (CFP): 24 hrs.

Fire Marshal (CVFPD, ECFPD): 24 hrs.

Captain (FFPD): 24 hrs.

Clerical: 3 hrs.

6. Automatic fire detection and extinguishing system failures will not occur as a result of the failure to provide preventive maintenance and testing. Records of incidents will be monitored monthly by a deputy fire marshal to identify system failures and the causes.

Deputy Fire Marshal: 12 hrs/yr.

Clerical: 12 hrs/yr.

- 7 - A fire hazard citation program will be developed and implemented within one year.

Fire Chief (CFP): 40 hrs.
Fire Marshal (CVFPD, ECFPD): 40 hrs.
Captain (FFPD): 40 hrs.
Clerical: 8 hrs.

- 8 - Prepare an ordinance for adoption as an amendment to the building code, in conjunction with the county building department, within one year, which will require automatic fire sprinklers in all new structures of more than 1,000 square feet.

Fire Chief: 16 hrs.
Fire Chief (CFP): 80 hrs.
Fire Marshal (CVFPD, ECFPD): 80 hrs.
Fire Captain (FFPD): 80 hrs.
Clerical 16 hrs.

9. A building code amendment will be developed in conjunction with the building department within one year which requires the installation of Class A or Class B roofing in all new or reroofing construction in Fire Zone 4 and a minimum of Class C in all other unincorporated areas of the county.

Fire Chief: 8 hrs.
Fire Chief (CFP): 40 hrs.
Fire Marshal (CVFPD, ECFPD): 40 hrs.
Captain: (FFPD): 40 hrs.
Clerical: 12 hrs.

10. Standard code flexibilities which are applicable to the installation of automatic fire extinguishing systems and their related cost benefits to developers will be identified within six months.

Fire Chief (CFP): 24 hrs.
Fire Marshal (CVFPD, ECFPD): 24 hrs.
Captain (FFPD): 24 hrs.
Clerical: 4 hrs.

11. A "one-stop" plan check and permit program will be established within one year in conjunction with the building, planning department and public works departments to conduct site plan reviews and construction plan reviews with those agencies at their joint plan review facility.

Fire Chief: 4 hrs.
Fire Chief (CFP): 8 hrs.
Fire Marshal (CVFPD, ECFPD): 8 hrs.
Captain (FFPD): 8 hrs.

12. A fuel modification plan and wildland fire control plan will be implemented within one year in the wildland interface areas in order to mitigate the fire risks within those areas. This program will be coordinated with CDF's revised "Firesafe" and public Resource Code programs.

Fire Chief: 8 hrs.

Fire Chief (CFP): 24 hrs.

Fire Marshal (CVFPD, ECFPD): 24 hrs.

Captain (FFPD): 24 hrs.

Clerical: 4 hrs.

13. A system of fees for service will be developed which provides funding for fire code and Haz Mats controls enforcement programs required for all residential, commercial and industrial occupancy construction and operations.

Fire Chief: 48 hrs.

Fire Marshal (CVFPD, ECFPD): 16 hrs.

Captain (FFPD): 16 hrs.

Clerical: 4 hrs.

FIRE SAFETY EDUCATION REQUIREMENTS AND ACTION PLANS

1. A comprehensive fire safety education program which will increase fire safety awareness and activities within all segments of the community will be developed and maintained within 24 months.

Training Officer: 400 hrs/yr.

Clerical: 200 hrs/yr.

2. A fire safety education program will be prepared for adoption by the education system (K-12) within 24 months.

Fire Chief: 4 hrs.

Training officer: 40 hrs.

Clerical: 16 hrs.

3. A program will be developed and provided to commercial and industrial occupancies within 36 months to assist them in preparing and maintaining fire safety and disaster preparedness plans.

Fire Chief: 16 hrs.

Fire Marshal: 16 hrs.

Training Officer: 40 hrs.

Clerical: 4 hrs.

4. A rural self-help safety education program will be developed and implemented within twelve months. This program will include safety audits of dwellings, training in fire prevention, EMS and Haz Mats and retrofit programs for residential sprinklers. The program would be developed by the fire prevention bureau and the training division and conducted by the suppression division (career personnel) one day per month per company.

Fire Chief: 2 hrs.

Fire Marshal: 4 hrs.

Deputy Fire Marshal: 16 hrs.

Training Officer: 56 hrs.

Captain: 1,152 hrs/yr. (12 companies)

Engineer: 1,152 hrs/yr. (12 companies)

Firefighter: 1,152 hrs/yr. (12 companies)

Clerical: 104 hrs/yr.

FIRE SUPPRESSION REQUIREMENTS AND ACTION PLANS

- 1 - "First alarm" resources (personnel and apparatus) will be maintained which are necessary to deliver the fire flow required for each type of structure based upon building construction type, occupancy class and built-in fire protection.

These requirements will be formally adopted when the board of directors and the board of supervisors approve a policy prepared by the fire chief.

Fire Chief: 24 hrs.

Deputy Chief (CVFPD, ECFPD): 4 hrs.

Captain (CFP, FFPD, CDF): 4 hrs.

Clerical: 3 hrs.

2. The first engine will arrive at the scene of 95 percent of fire incidents within five minutes (total travel time) in central business districts, urban and suburban areas, with a minimum of three personnel.

A policy will be adopted by the district board of directors and the board of supervisors that fire stations will be located so that travel distance to 95 percent of the district is two and one half miles or less.

The personnel hours required for suppression activities have been calculated by identifying the number of hours devoted to fire suppression during the 8:00 a.m. to 5:00 p.m. period and adding to that the hours between 5:00 p.m. and 8:00 a.m. which are devoted primarily to standby and incident responses.

According to the California State Fire Marshal's incident statistics from the California Fire Incident Reporting System (CFIRS) 46% of all incidents occur between 8:00 a.m. and 5:00 p.m. CFIRS data was used in this case since statistics are not maintained by all the districts in this form.

It is estimated that the average time committed to fire incidents is one and one half hours per incident. This is an estimated since accurate data is not available. The average number of fires for the past five years for the five districts staffed by career personnel are:

217 structure fires @ 10 personnel @ 1.5 hours = 3,255 hrs.
 206 vegetation fires @ 6 personnel @ 1.5 hours = 1,854 hrs.
 258 vehicle fires @ 3 personnel @ 1 hour = 774 hrs.
 108 other fires @ 3 personnel @ 1 hour = 324 hrs.

Average incidents 8:00 a.m. to 5:00 p.m.	Average hour per position			
	B/C	CAPT.	ENG	FIREFGTR
100 structure fires	150	450	450	450
95 vegetation fires	143	285	285	285
119 vehicle fires	0	119	119	119
108 other fires	0	108	108	108
Total	293	962	962	962

One additional station is needed in the Crow Canyon/Norris Canyon area to meet first alarm and full alarm response standards.

The personnel hours required to maintain three person staffing of thirteen apparatus with three personnel and two battalion chiefs during the period of 5:00 p.m. to 8:00 a.m. are:

2 battalion chiefs: 11,680 hours
 12 captains: 75,920 hours
 12 engineers: 75,920 hours
 12 firefighters: 75,920 hours.

Fire Chief: 16 hrs.
 Deputy Chief: 16 hrs.
 Battalion Chief: 11,973 hrs/yr.
 Captain: 76,882 hrs/yr.
 Engineer: 76,882 hrs/yr.
 Firefighter: 76,882 hrs/yr.
 Clerical: 4 hrs.

Additional fire stations: (See Facilities section)

The OES volunteer fire department responded to an average of 41 incidents per year for the past five years, with an average of 1,029 personnel hours devoted to these responses. Since detailed records are not available these hours have been divided equally among the

personnel by rank: fire chief - 30 hour, assistant chief - 30 hours, captain - 60 hours, lieutenant - 91 hours and firefighter - 816 hours.

3. The first engine will arrive at the scene of 95 percent of fire incidents within 10 minutes (total travel time) in rural areas.

A policy will be adopted by the district board of directors and the board of supervisors that fire stations in rural areas will be located so that travel distance to 95 percent of the district is five miles or less. This fire station location policy will be adjusted to account for incident frequency since large areas may be beyond the ten minute response time but incident frequency is less than 5 percent of the total. (See Facilities Section)

4. In areas which are more than a five minute response time from a fire station the primary method of providing fire suppression services for new and existing structures will be via automatic fire sprinklers, smoke detectors, fire retardant roofing and other self-help fire mitigation measures, with support from fire district suppression personnel.

A policy will be adopted by the district board of directors and the board of supervisors which documents this policy. The building code will be modified to require sprinklers in new structures. The building code will be modified to require fire retardant roofing in all new and reroofing construction. A wildland interface fire control program will be developed in conjunction with CDF. A self-help fire safety education program will be conducted by the district.

Fire Chief: 16 hrs.

Clerical: 4 hrs.

Building code changes: (See Building Department section)

Self-help fire safety program: (See Fire Safety Education)

5. All fire suppression resources required as a "first alarm assignment" will arrive within 10 minutes at 95 percent of fire incidents in central business district, urban and suburban area and within 15 minutes in rural areas at 80 percent of fire incidents.

The fire chief will prepare a recommended policy for adoption by the board of directors and the board of supervisors. Fire stations needed to provide the required personnel will be located within 5 miles of 95 percent of the business district, urban and suburban areas. Also in rural areas fire stations will be located within seven and one half miles of 80 percent of the area. However, in rural areas the response statistics will be evaluated in addition to travel distance.

The total fire suppression resources (personnel and apparatus) required is based upon the "fire flow" requirements of each type of structure and occupancy. (See Appendix A for Fire Flow and Personnel Requirements)

Fire Chief: 24 hrs.

Deputy Chief: 40 hrs.

Clerical: 8 hrs.

Fire Station Locations: (See Facilities Section)

6. Effective mutual aid and automatic aid agreements will be maintained with neighboring agencies to provide added fire suppression resources needed to cope with multiple or major fire incidents.

Fire Chief: 16 hrs.

Deputy Chief: 32 hrs.

Clerical: 2 hrs.

FIRE INVESTIGATION REQUIREMENTS AND ACTION PLANS

1. The causes of all fire incidents will be investigated and a California Fire Incident Report (CFIRS) will be completed.

Company officers will determine causes of fires and prepare a CFIRS report on each incident. It is estimated that the determination of cause and the entry of the data into the automated reporting system requires 1.5 hours. The five year average number of fires of all types in all districts is 790.

Captain: 1,185 hrs/yr.

2. All suspicious or incendiary fires will be investigated by personnel with special skills in arson investigation and prosecution.

It is estimated that the average time spent on a fire investigation is 24 hours and that 80 fire investigations occur each year in the unincorporated areas

Deputy Fire Marshal: 80 investigations, @ 24 hrs. = 1,920/yr.
Clerical: 320 hrs/yr. @ 4 hrs. per investigation

3. The county-wide Fire Investigation Team program will be maintained with participation of all fire districts.

It is estimated that four team members will attend one 4 hour meeting per month and participate in 6 fire investigations per year at 16 hours per investigation.

Fire Chief: 4 hrs/yr.

Fire Marshal: 4 hrs/yr.

Deputy Fire Marshal: 430/yr.

Clerical: 2 hrs/yr.

EMERGENCY MEDICAL SERVICE REQUIREMENTS AND ACTION PLANS

1. A district unit with personnel trained at the BLS level will arrive at 95 percent of the EMS incidents within 5 minutes (travel time) of receipt of call for assistance in urban and suburban areas. In rural areas the first unit will arrive within 10 minutes at 90 percent of the EMS incidents.

Personnel training and certification: (See Training Section)
Vehicles: (See Fire Suppression Section)

The personnel requirements for EMS incidents are based upon the five year average number of EMS incidents in all districts. It is estimated that three fire district personnel are committed to an EMS scene for an average of 40 minutes.

Five-year average of EMS incidents:

County Fire Patrol:	226
Castro Valley FPD:	1,210
Eden Consolidated FPD:	2,565
Fairview FPD:	180
<u>Total</u>	<u>4,848</u>

Five-year average of time spent on EMS calls:

Captain:	3,232 hrs/yr.
Engineer:	3,232 hrs/yr.
Firefighter:	3,232 hrs/yr.

2. The district personnel will provide support to the ALS (advanced life support) ambulance units which will arrive at 95 percent of emergency medical calls within response times established by the county EMS department.

This support will consist of assistance in paramedic operations including accompanying patients to hospitals as needed. It is estimated that three percent of EMS calls to which fire departments respond fire department support of paramedic operations. The average time spent by fire department personnel at these incidents is 30 min.

The average number of responses for all districts over the past five years is 4,800 EMS calls per year.

The fire department clerical person spends two hours per month preparing and submitting the reimbursement requests to the county EMS agency.

Firefighter:	73 hrs/yr.
Clerical:	24 hrs/yr.

3. All First Responder firefighters, engineers and captains will maintain an EMT-1D certification. All other fire district employees will maintain an Advanced First Aid certification within 8 months.

(See Training Section)

4. A heavy rescue capability will be developed and maintained within 36 months which will include disaster response capabilities.

The training officer will attend a 40 hour Heavy Rescue course and then teach that course to all members of the suppression division.

Battalion Chief: 40 hrs.
Training Officer: 200 hrs.
Captain: 40 hrs.
Engineer: 40 hrs.
Firefighter: 40 hrs.
Clerical: 4 hrs.

5. A multi-casualty medical emergency disaster operation plan will be developed within 18 months. The plan will be exercised at least annually. This plan will include the coordination of multiple agencies and a definition of the fire districts' heavy rescue capability and responsibility.

Fire Chief: 4 hrs.
Deputy Chief (CVFPD, ECFPD): 4 hrs.
Battalion Chief: 4 hrs.
Training Officer: 32 hrs.
Clerical: 8 hrs/yr.

6. A computerized management information system will be maintained to record emergency medical activities and to facilitate the analysis of program effectiveness and efficiency within one year.

The deputy chief responsible for EMS operations will conduct a semi-annual analysis of EMS operations.

Fire Chief: 2 hrs/yr.
Deputy Chief (CVFPD, ECFPD): 8 hrs/yr.
Captain (FFPD, CFP, CDF): 8 hrs/yr.
Clerical: 4 hrs/yr.
(See Management Section for cost of data system)

HAZARDOUS MATERIALS CONTROLS REQUIREMENTS AND ACTION PLANS

1. The Alameda County fire districts will develop a Haz Mat incident control plan within 18 months. This plan will be exercised at least annually.

Fire Chief: 2 hrs.
Fire Chief (CFP): 4 hrs.
Deputy Chief (CVFPD, ECFPD): 4 hrs.
Captain (FFPD): 4 hrs.
Fire Marshal: 4 hrs.
Battalion Chief: 2 hrs.
Training Officer: 24 hrs.
Clerical: 6 hrs.

2. All personnel will be trained and be certified at the Haz Mat "Operations Level" within nine months.

Castro Valley FPD, Fairview FPD and CDF have conducted initial training. The requirement of eight hours per year skill maintenance training is required. The 24 hour training course would be provided for County Fire Patrol, Eden Consolidated and OES in addition to the 8 hours per year required to maintain the certification.

The training officer would attend the Haz Mat (Operational) training course and then conduct a 24 hour training course for each shift for each department.

Fire Chief: 24 hrs
Training Officer: 432 hrs.
Deputy Chief: 56 hrs.
Battalion Chief: 120 hrs.
Captain: 528 hrs.
Lieutenant: 72 hrs.
Engineer: 528 hrs.
Firefighter: 792 hrs.
Volunteer Firefighter: 1,152
Clerical: 8 hrs.

3. A Haz Mat response team with personnel trained at the Technician level with equipment required to perform incident mitigation will arrive at 95% of Haz Mat incidents within fifteen minutes of notification by a fire district, 24 hours per day.

Haz Mat response team services currently are provided by the County Health Department. (See County Health Department Section)

4. All occupancies requiring Haz Mat business plans will be inspected annually for fire code and Haz Mat code compliance and reissuance of permits.

Fire code compliance will be provided by fire districts. (See Fire Prevention Section)

Haz Mat code compliance and reissuance of permits will be provided by the county health department. (See County Health Department Section)

5. A permit fee which will fully fund the Haz Mat inspections by fire districts will be implemented within 6 months.

Fire Chief: 4 hrs.

Fire Chief (CFP): 24 hrs.

Fire Marshal (CVFPD, ECFPD): 24 hrs.

Clerical: 8 hrs/yr.

6. An approved hazardous materials business plan (HMMP) will be a requirement for the issuance of certificates of occupancy within eighteen months. (See Building Department Section)

A procedure will be developed in conjunction with the county building department.

Fire Chief (CFP): 8 hrs.

Fire Marshal (CVFPD, ECFPD): 8 hrs.

Captain (FFPD): 8hrs..

Clerical: 2 hrs.

7. Industrial and commercial occupancies which must report Haz Mats under the provisions of county, state or federal regulations shall do so through a computerized program being developed and provided by the County Environmental Health Department, Haz Mat Division, within 8 months.

The chief of each district will coordinate with the Haz Mat division to assure the installation and operation of the system.

Fire chief: 24 hrs.

Clerical: 8 hrs.

8. Fire district personnel shall be provided with Haz Mat data required to perform fire prevention and incident control operations, within 12 months.

Each district will develop a procedure for receiving, storing and retrieving this information.

Fire Chief (CFP): 4 hrs.
Fire Marshal (CVFPD, ECFPD): 4 hrs.
Deputy Chief (CVFPD, ECFPD): 4 hrs.
Captain (FFPD): 4 hrs.
Clerical: 40 hrs/yr.

9. A procedure will be established for hospitals and ambulance agencies to assure that decontamination programs are developed and maintained by health care providers, within one year.

Deputy Chief (CVFPD, ECFPD): 8 hrs.
Captain (CFP, FFPD, CDF): 8 hrs.
Clerical: 2 hrs.

TRAINING REQUIREMENTS AND ACTION PLANS

1. Establish minimum levels of knowledge and skills for entry level personnel within one year in order to reduce the responsibility and cost of initial training.

The training officer will develop a program of minimum levels of knowledge and skills for entry level career and volunteer personnel.

Fire Chief: 4 hrs.
Training Officer: 32 hrs.
Clerical: 4 hrs.

2. Develop and implement a program within 18 months which is designed to meet the affirmative action goals of the county.

The training officer will develop a recruitment and skill development program in conjunction with the community college fire science program, apprenticeship programs and volunteer firefighter programs.

Fire Chief: 8 hrs.
Deputy Chief: 4 hrs.
Battalion Chief: 4 hrs.
Training Officer: 48 hrs.
Clerical: 8 hrs.

3. Establish minimum training and education requirements for promotion to all ranks, within three years, based upon the State Board of Fire Services Certification Program which will be modified to meet local needs.

A policy will be developed with the full input of management and operational personnel, including the meet and confer requirements.

Fire Chief: 8 hrs.
Deputy Chief: 8 hrs.
Fire Marshal: 8 hrs.
Battalion Chief: 4 hrs.
Training Officer: 40 hrs.
Captain: 40 hrs.
Engineer: 40 hrs.
Firefighter: 40 hrs.
Clerical: 16 hrs.

4. Develop and implement a program of skill maintenance training required for all ranks, within six months.

Resources devoted to skill maintenance training would be:

- o Management personnel: 8 hrs/mo. and one 40 hour course/yr.
- o Operational personnel: 24 hrs/mo.
- o Personnel in volunteer status will be scheduled for 8 hrs/mo.
- o The training officer will conduct one day of training per week for each shift.

Career Personnel:

Fire Chief, program design: 8 hrs.
Training Officer, program design: 40 hrs.
Training Officer, conduct scheduled training: 1,248 hrs/yr.
Chief: 120 hrs/yr.
Deputy Chief: 120 hrs/yr.
Battalion Chief: 168 hrs/yr.
Fire Marshal: 120 hrs/yr.
Deputy Fire Marshal: 120 hrs/yr.
Captain: 264 hrs/yr.
Engineer: 264 hrs/yr.
Firefighter: 264 hrs/yr.
Clerical: 120 hrs/yr.

Volunteer Personnel

Fire Chief: 96 hrs/yr.
Assistant Chief: 96 hrs/yr.
Captain: 96 hrs/yr.
Lieutenant: 96 hrs/yr.
Firefighter: 96 hrs/yr.

5. Provide the training needed to maintain EMT-1D certification for all volunteers, firefighters, engineers, and captains. Maintain advanced first aid certification for all other department employees.

The training for initial certification as EMT-I requires 130 hours. Recertification requires 33 hours every two years. Automatic defibrillator training requires 8 hours.

Training and recertification will be coordinated through the county EMS office. A training officer will be trained and certified to conduct the required skill maintenance training required for recertification.

Training Officer, design program w/ county: 16 hrs.

Training Officer, conduct training: 32 hrs/yr.

Clerical: 8 hrs/yr.

Fire Chief: 16 hrs/yr.

Deputy Chief: 16 hrs/yr.

Battalion Chief: 16 hrs/yr.

Fire Marshal: 16 hrs/yr.

Deputy Fire Marshal: 16 hrs/yr.

Captain: 16 hrs/yr.

Engineer: 16 hrs/yr.

Firefighter: 16 hrs/yr.

6. Provide the training needed to maintain the required Haz Mat training for all personnel at the "Operations" level.

Training Officer, conduct training: 48 hrs/yr.

Battalion Chief: 8 hrs/yr.

Captain: 8 hrs/yr.

Engineer: 8 hrs/yr.

Firefighter: 8 hrs/yr.

Clerical: 4 hrs/yr.

7. The training officer will develop and maintain a program to provide the training and testing needed to meet DMV requirements for special drivers licenses, within 6 months.

Each person who drives a fire apparatus must renew the special driver license every four years. It is estimated that a two hour training and driving test will be conducted and that one-fourth of the personnel will require the training/testing each year.

The district will participate in the DMV Employer Statement Program whereby the district can provide the training and Issue certificates of Training which are recognized by the DMV to waive the driving test requirement.

Training Officer, program design: 8 hrs.

Training Officer, conduct training: 24 hrs/yr.

Clerical: 6 hrs/yr.

Captains: .5 hr/yr.

Engineers: .5 hr/yr.

Firefighter: .5 hr/yr.

8. Certified instructors will be available within the districts to provide the training needed to maintain certification in EMT-1D, Haz Mat (Operations) and state drivers license requirements.

Training Officer, Haz Mat instructor training: 36 hrs.
Training Officer, EMS instructor training: 36 hrs.
Training Officer, driver training instructor: 36 hrs.
9. All career captains and battalion chiefs shall be trained and certified as instructors under the State Board of Fire Services Certification program within three years.

Training Officer: 80 hrs.
Battalion Chief: 36 hrs.
Captain: 36 hrs.
10. Training facilities will be identified or provided within three years which will enable the fire district to effectively provide the training evolutions listed in Task 3 (Item 10 Training).

It is estimated that the cost of a minimal facility for training including surfaced area for driver training, hose lay operations, heavy rescue and auto rescue operations will cost approximately \$750,000.

Chief: 4 hrs.
Deputy Chief: 4 hrs.
Training Officer: 80 hrs.
Clerical: 4 hrs.
Facilities: \$750,000
11. An automated record and evaluation system will be developed within six months, which will be available to all districts to schedule, record and evaluate training/educational activities.

Training Officer: 24 hrs/yr.
Clerical: 12 hrs/yr.
Training program hardware and software: (See Management Action Plans)
12. An accident prevention and physical fitness program will be developed and implemented for all district personnel which includes minimum standards for physical fitness within three years.

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The physical fitness standards will be developed by a joint management-labor committee, these will include testing and rehabilitation subprograms.

Fire Chief (career): 8 hrs.
Deputy Chief (career): 4 hrs.
Battalion Chief (career): 114 hrs/yr.
Fire Marshal: 110 hrs/yr.
Deputy Fire Marshal: 110 hrs/yr.
Training Officer (career): 80 hrs.
Captain (career): 110 hrs/yr.
Engineer (career): 110 hrs/yr.
Firefighter (career): 110 hrs/yr.
Clerical: 4 hrs.

13. An evaluation of the feasibility and benefits of participating in the California Firefighter Joint Apprenticeship Program will be completed within one year. This program would be evaluated by a committee consisting of the training officer, one battalion chief and one captain

Fire Chief: 12 hrs.
Deputy Chief: 12 hrs.
Battalion Chief: 32 hrs.
Training Officer: 32 hrs.
Captain: 32 hrs.
Clerical: 8 hrs.

14. Develop and deliver a program within one year which will provide initial training of new communications center dispatchers and coordinate skill maintenance training related to fire district operations. The training officer will develop a training program in conjunction with the communications center and will schedule and provide training.

Training Officer, develop program: 24 hrs.
Training Officer, conduct training: 24 hrs/yr.
Clerical: 8 hrs.

APPARATUS MAINTENANCE AND REPLACEMENT REQUIREMENTS AND ACTION PLANS

1. No apparatus and equipment failures during emergency responses will occur as a result of the failure to provide scheduled preventive maintenance.

The officer in charge of operations will review incident and accident reports to identify equipment failures and conduct the

necessary evaluations of the causes of failures.
maintenance program for fire apparatus and vehicles.

Deputy Chief (CVFPD and ECFPD): 12 hrs/yr.
Captain (CFP, OES and FFPD): 12 hrs/yr.
Clerical: 6 hrs/yr.

2. All apparatus and equipment will receive scheduled preventive maintenance as specified in Task 3, Apparatus Maintenance Section item 2.

One battalion chief (or Captain in CFP, FFPD or OES) is assigned to coordinate the fire apparatus and equipment maintenance program.

For apparatus staffed by career personnel, engineers perform a daily operational check of each apparatus (two hours) and weekly equipment and systems tests (four hours). Annual pump and hose tests are conducted for each apparatus (four hours each test). The total time devoted by engineer to these tasks is 1,034 hours per year, per engineer position.

Apparatus staffed by volunteers receive a weekly operational check (one hour per apparatus), monthly apparatus and equipment tests (four hours per apparatus) and annual pump/hose tests (four hours per test). The total time devoted by volunteer personnel to these tasks is 972 hours per year.

Chief: 2 hrs.
Deputy Chief: 4 hrs.
Battalion Chief (CVFPD, ECFPD), develop maint. program: 24 hrs.
Captain (CFP, FFPD, CDF), develop maintenance program: 24 hrs.
Battalion Chief (CVFPD, ECFPD), administer program: 120 hrs/yr.
Engineer (career): 1,034 hrs/yr.
Firefighter (volunteer): 972 hrs/yr.
Clerical: 32 hrs/yr.

3. An apparatus and vehicle replacement schedule and funding program to meet replacement objectives (Task 3) will be developed by the battalion chief or captain assigned to apparatus and equipment, within one year.

Apparatus which would be replaced according to the recommended schedule in Table 1 are listed in Table 2.

Fire Chief: 2 hrs.
Battalion Chief (CVFPD, ECFPD): 80 hrs.
Captain (CFP, FFPD, OES): 80 hrs.
Clerical: 16 hrs.

The apparatus replacement schedule in Table 1A is based upon the standards recommended in Task 3:

<u>Apparatus</u>	<u>First Line Service</u>	<u>Reserve</u>
Engine	15 yrs.	10 yrs.
Truck	20 yrs.	10 yrs.
Squad	15 yrs.	n/a
Patrol	15 yrs.	n/a
Staff vehicle	5 yrs. or 50K miles	n/a

Table 1 - APPARATUS REPLACEMENT SCHEDULE

<u>APPARATUS</u>	<u>PURCHASED</u>	<u>TO RESERVE</u>	<u>REPLACEMENT</u>
<u>ENGINES</u>			
CFP E-71	1971	1986*	1996
CFP E-72	1976	1991*	2001
CVFPD E-1	1991	2006	2016
CVFPD E-2	1986	2001	2011
CVFPD E-3	1984	1999	2009
CVFPD E-4	1987	2002	2012
CVFPD E-11(R)	1980	1995	2005
CVFPD E-22(R)	1982	1997	2007
CVFPD E-102(R)	1972	1991	1997
ECFPD E-1	1981	1996	2006
ECFPD E-2	1988	2003	2013
ECFPD E-22	1988	2003	2013
ECFPD E-3	1973	1988*	1998
ECFPD E-5(R)	1970	1988	1995
ECFPD E-6(R)	1970	1988	1995
CDF-SUNOL	1987	2002	2012
O.E.S. E-231	1972	1985*	1995
O.E.S. E-232	1975	1990*	2001
O.E.S. E-201(R)	1974	1989	1999
FFPD E-1	1989	2004	2014
FFPD E-2	1984	1999	2009
<u>TRUCKS</u>			
CVFPD LADDER-1	1989	2009	2019

* Apparatus which are overdue for replacement
(R) Reserve apparatus

<u>APPARATUS</u>	<u>PURCHASED</u>	<u>TO RESERVE</u>	<u>REPLACEMENT</u>
<u>RESCUE/SQUADS</u>			
CFP SQUAD-71	1986	N/A	1991*
CVFPD AIR/LIGHT	1991	N/A	2006
ECFPD RESCUE	1972	N/A	1987*
<u>PATROLS</u>			
CFP PATROL 71	1986	N/A	2001
CVFPD PATROL-1	1980	N/A	1995
ECFPD PATROL-1	1983	N/A	1998
FFPD PATROL	1986	N/A	2001
O.E.S. PATROL 232	1991	N/A	2006
O.E.S. PATROL 231	1982	N/A	1997
O.E.S. PATROL 201	1989	N/A	2004

TABLE 2 - APPARATUS REPLACEMENT REQUIREMENTS

<u>YEAR</u>	<u>ENGINES</u>	<u>TRUCK</u>	<u>SQUADS</u>	<u>PATROLS</u>
1991	5		2	
1992				
1993				
1994				
1995	3			1
1996	2			
1997	2			1
1998	1			1
1999	3			
2000				
TOTAL	16	0	2	3

4. An automated maintenance and operations data system will be implemented and maintained, which provides the information required to manage maintenance and replacement programs.

(See Management Section)

5. Mechanics providing fire apparatus maintenance shall be certified fire apparatus mechanics under the State Board of Fire Services Certification program, within 2 years.

The battalion chief or captain in charge of apparatus maintenance will coordinate with the maintenance facility to assure that mechanics are qualified/certified and to assure that quality control is maintained.

Battalion Chief (CVFPD, ECFPD): 8 hrs.

Captain (CFP, FFPD): 8 hrs.

Lieutenant (OES): 8 hrs.

FACILITY REQUIREMENTS AND ACTION PLANS

1. A long range fire station location and replacement plan will be adopted within 9 months which provides the most efficient and effective use of fire district and mutual aid/automatic aid units for response to fire, EMS/rescue and Haz Mats incidents. Fire stations will be located to meet the response standards established in the fire suppression and EMS sections.

Fire Chief: 24 hrs.

Deputy Chief: 8 hrs.

Battalion Chief (2): 40 hrs.

Captain (3): 40 hrs.

Clerical: 16 hrs.

The current fire station locations and staffing are adequate to meet the first alarm and full alarm response standards within the CVFPD, ECFPD and FFPD. ECFPD stations #1 and #3 should be relocated and reconstructed in the general area of the current stations.

Less than ten percent of the area protected by CFP is within standard five minute response time from the current station. Most of the area within a five minute response time of the current station is within the city limits of Livermore. This is an ineffective location for the fire station.

The Sunol CDF station is strategically located to provide a five minute response time to Kilkare Canyon, Niles Canyon, and portions of Vallecitos Road, Foothill Road and Highway 680.

CDF-Sunol station response does not meet the established standard.

None of the areas protected by CFP and CDF have sufficient county stations and personnel available to meet the full alarm (10 minute) response standard.

The first alarm and full alarm response standards could be met in the Crow Canyon and Norris Canyon areas by constructing a new fire station near the intersection of Crow Canyon and Norris Canyon roads. Activity rates do not warrant the construction of a fire station at this time. Service could be improved through an automatic aid agreement with the San Ramon Valley Fire Protection District. A site for a future station should be selected.

2. All fire stations shall be constructed to withstand anticipated natural disasters and to operate as regional disaster facilities in disaster recovery operations. This will include a high level of earthquake resistance. Facilities to be provided include fuel supplies, full electrical power, communications equipment and emergency medical equipment and supplies which are sufficient to maintain operations for 72 hours. Existing facilities shall be upgraded to meet the established standards within five years.

The earthquake resistance of all fire district facilities will be evaluated by an engineering firm which specializes in earthquake resistance.

In order to meet these emergency design criteria three emergency generators and six fuel storage facilities are needed. Also medical supply caches are needed at all stations.

ITEMS	CFP	ECFPD	CVFPD	OES	FFPD	CDF	TOTAL
Fuel storage	1	2	2	1			6
Emergency Generator		1		1	1		3
Medical supplies	1	3	4	1	1	1	11

Fire Chief: 8 hrs.

Deputy Chief (CVFPD, ECFPD): 24 hrs.

Captain (CFP, FFPD): 24 hrs.

Lieutenant (CDF): 24 hrs.

The estimated cost of an 80 kw emergency generator is \$25,000 each. The total cost for three units would be \$75,000.

The estimated cost of fuel storage units is \$15,000 each, for a total of \$90,000 for six units. Eleven medical supply caches: \$1,500 each, total \$16,500.

3. Major repairs shall not be required to structures or building systems due to failure to provide established preventive maintenance.

One battalion chief will be assigned to manage building maintenance and repair programs.

Fire suppression personnel provide janitorial and minor building maintenance services. It is estimated that firefighters devote two hours per day to janitorial services with an additional one-half day once per week.

Battalion Chief (CVFPD, ECFPD) manage programs: 2 hours per shift.
Captain (CFP, FFPD) manage programs: 2 hours per shift.
Lieutenant (OES): 1 hour per week.
Firefighter: 938 hrs/yr/station.
Clerical: 30 hrs/yr.

4. An optimum preventive maintenance program for fire district facilities will be identified within twelve months.

The battalion chief or captain in charge of facilities will conduct a thorough analysis of existing janitorial and building maintenance programs to identify methods of providing the most efficient and effective maintenance. This will include an analysis of the priority of janitorial activities with other operational programs.

Fire Chief: 2 hrs.
Battalion Chief (CVFPD, ECFPD): 40 hrs.
Captain (CFP, FFPD): 40 hrs.
Clerical: 4 hrs.

5. The preventive maintenance program will be implemented within 16 months utilizing the most cost-effective program available.

The analysis and recommendations of the maintenance and janitorial report will be presented to the board of directors for adoption and implementation.

Fire Chief: 12 hrs.
Battalion Chief (CVFPD, ECFPD): 8 hrs.
Captain (CFP, FFPD): 8 hrs.
Clerical: 4 hrs.

6. A record and evaluation system will be established to identify the maintenance activities and costs related to each fire district facility which includes quarterly reports and program analysis.

(See Management Requirements and Action Plan #4)

7. All new facilities plans should be analyzed for maximum maintenance efficiency prior to final approval.

The district board of directors should adopt a policy within three months which specifies that the battalion chief in charge of facilities will prepare a requirement in conjunction with the building and planning departments which will include an analysis of maintenance efficiency in all fire station building design plans and specifications.

Battalion Chief (CVFPD, ECFPD): 12 hrs.

Captain (CFP, FFPD): 12 hrs.

DISASTER PLANNING REQUIREMENTS AND ACTION PLANS

1. The fire districts will develop and maintain a multiple risk/disaster response program within 24 months utilizing the organizational concepts contained in the Incident Command System (ICS) and the Integrated Emergency Management System (IEMS)

Fire Chief: 8 hrs.

Training Officer: 56 hrs.

Clerical: 16 hrs.

2. A disaster plan exercise will be conducted at least annually in conjunction with county departments and agencies with major responsibilities.

All chief officers and two engine companies from each department will participate in each exercise.

Fire Chief: 4 hrs/yr.

Deputy Chief: 4 hrs/yr.

Battalion Chief: 4 hrs/yr.

Fire Marshal: 4 hrs/yr.

Training Officer: 40 hrs/yr.

Captain: 12 hrs/yr.

Lieutenant: 12 hrs/yr.

Engineer: 12 hrs/yr.

Firefighter: 12 hrs/yr.

Clerical: 8 hrs/yr.

3. Multiple risk disaster exercises will be conducted with neighboring fire protection, EMS, Haz Mat agencies and county communications at least twice per year to maintain regional disaster and ICS procedures.

Each drill will be a one-half day drill including two companies and a battalion chief from each district.

Training Officer: 24 hrs.

Battalion Chief: 16 hrs.

Captain: 16 hrs/yr.

Engineer: 16 hrs/yr.

Firefighter: 16 hrs/yr.

4. Fire district representatives will be assigned to the emergency operations center (EOC) when that center is activated. A procedure to accomplish this will be implemented within three months.

A deputy chief will be assigned to the EOC and will participate in EOC exercises.

Fire Chief: 4 hrs.

Deputy Chief: 16 hrs/yr.

5. An educational program will be developed and presented with emphasis upon commercial, industrial and rural residential occupants to encourage individual disaster preplanning and self-help disaster response activities within 36 months.

The training officer will develop a program in conjunction with county OES. The program will be delivered as part of the fire safety education program.

Training Officer: 32 hrs.

Clerical: 4 hrs.

FIRE PROTECTION ACTION PLANS FOR OTHER AGENCIES

Each district will develop operational agreements and procedures with other public and private agencies which impact the districts' ability to provide fire protection, EMS and Haz Mats services. The action plans listed below reflect the estimated personnel hours required to develop agreements regarding the fire protection responsibilities and programs of these agencies as proposed in Task 3.

COMMUNICATIONS AND DISPATCH REQUIREMENTS AND ACTION PLANS

The districts will jointly develop procedures to meet the objectives outlines the County Communications Section of Task 3 within 6 months. A battalion chief or captain will be assigned by each district to represent the district.

Fire Chief: 8 hrs.
Battalion Chief (CVFPD, ECFPD): 24 hrs.
Captain (CFP, FFPD, CDF): 24 hrs.
Lieutenant (OES): 24 hrs.
Clerical: 6 hrs.

BUILDING DEPARTMENT FIRE PROTECTION REQUIREMENTS AND ACTION PLANS

The fire marshal will meet with the building official to develop the programs to meet the objectives established in the Building Department Section of Task 3, within 3 months.

Fire Chief: 8 hrs.
Fire Chief (CFP): 48 hrs.
Fire Marshal (CVFPD, ECFPD): 48 hrs.
Captain (FFPD): 48 hrs.
Clerical: 12 hrs.

PLANNING DEPARTMENT FIRE PROTECTION REQUIREMENTS AND ACTION PLANS

Jointly develop with the planning department programs to meet the objectives established in the Planning Department Section of Task 3, within 6 months.

Fire Chief: 2 hrs.
Fire Chief (CFP): 8 hrs.
Fire Marshal (CVFPD, ECFPD): 8 hrs.
Captain (FFPD): 8 hrs.
Clerical: 2 hrs.

COUNTY EMERGENCY MEDICAL SERVICES REQUIREMENTS AND ACTION PLANS

Jointly develop or reinforce the procedures to meet the objectives identified in the EMS Section of Task 3, within 9 months.

Fire Chief: 2 hrs.
Training Officer (CVFPD, ECFPD): 16 hrs.
Captain (CFP, FFPD, OES): 16 hrs.
Clerical: 4 hrs.

COUNTY HAZ MAT DIVISION REQUIREMENTS AND ACTION PLANS

Jointly develop procedures with the County Haz Mat division to implement the objectives established in the County Haz Mat section of Task 3, within 6 months.

Fire Chief: 16 hrs.
Fire Chief (CFP) operational procedures: 40 hrs.
Deputy Chief (CVFPD, ECFPD) operational procedures: 40 hrs.
Captain (FFPD, CDF) operational procedures: 40 hrs.
Fire Chief (CFP): code enforcement: 16 hrs.
Fire Marshal (CVFPD, ECFPD) code enforcement: 16 hrs.
Captain (FFPD) code enforcement: 16 hrs.
Clerical: 8 hrs.

COUNTY PUBLIC WORKS FIRE PROTECTION REQUIREMENTS AND ACTION PLANS

Jointly develop with the public works department procedures to implement the objectives established in Task 3, within 12 months.

Fire Chief: 2 hrs.
Fire Chief (CFP): 8 hrs.
Fire Marshal (CVFPD, ECFPD): 8 hrs.
Captain (FFPD, CDF): 8 hrs.
Clerical: 4 hrs.

SHERIFFS DEPARTMENT FIRE PROTECTION REQUIREMENTS AND ACTION PLANS

Jointly develop with the sheriffs department procedures to implement the objectives established in the Sheriffs Section of Task 3, within 9 months.

Fire Chief: 4 hrs.
Deputy Chief (CVFPD, ECFPD): 16 hrs.
Captain (FFPD, CFP, CDF): 16 hrs.
Training Officer: 8 hrs.
Clerical: 6 hrs.

PRIVATE PARAMEDIC PROVIDER REQUIREMENTS AND ACTION PLANS

Maintain coordination with the county EMS department to assure that the standards and procedures established for operations in the unincorporated areas are maintained and revised as needed, within 12 months.

Fire Chief: 16 hrs./yr.
Training Officer (CVFPD, ECFPD): 24 hrs/yr.
Captain (CFP, FFPD, OES, CDF): 24 hrs.
Clerical: 24 hrs/yr.

EDUCATIONAL SYSTEM FIRE PROTECTION REQUIREMENTS AND ACTION PLANS

Jointly develop programs with the school districts to meet the objectives adopted in the Educational System Section of Task 3, within 18 months.

Fire Chief: 16 hrs.
Fire Chief (CFP): 32 hrs.
Training Officer (CVFPD, ECFPD): 32 hrs.
Captain (FFPD, CDF): 32 hrs.
Clerical: 8 hrs.

WATER COMPANIES FIRE PROTECTION REQUIREMENTS AND ACTION PLANS

The fire marshal will jointly develop programs with the water companies to meet the objectives established in Task 3, within 24 months.

Fire Chief: 4 hrs.
Fire Chief (CFP): 32 hrs.
Fire Marshal (CVFPD, ECFPD): 32 hrs.
Fire Captain: (FFPD, CDF): 32 hrs.
Clerical: 8 hrs.

COUNTY AUDITOR-CONTROLLER FIRE PROTECTION ACTION PLANS

The district and the county auditor-controller will jointly develop and implement purchasing and payment procedures which will reduce the current delays and inefficiencies in acquisition and payment related to items approved in the budget.

Fire Chief: 4 hrs.
Deputy Chief: 16 hrs.
Clerical: 3 hrs.

CURRENT FIRE DISTRICT STAFFING, STATIONS AND FIRST LINE APPARATUS

TITLE	CFP	ECFPD	CVFPD	OES	FFPD	CDF	TOTAL
STATIONS	1	3	4	N/A	1	1	10
ENGINES	1	4	4	3	2	1	15
TRUCK			1				1
SQUAD	1	1	1				3
PATROL	1	1	1	3	1		7
WATER TNRD				1			1
TOTAL	3	6	7	7	3	1	27
CHIEF	1	1	1	1	1		5
D/C		1	1				2
A/C (VOL)				1			1
B/C		4	3			0.2	7.2
TRNG OFF.			1				1
FM							0
DFM		1	2				3
CAPT.	3	12	15		3		33
CAPT-VOL				2			2
LT-VOL				3			3
ENG.		15	15			3	33
FRFTR	9	21	24		6	3	63
FRFTR-VOL				27	21		48
CLERICAL		1	1		1	0.25	3.25
TOTAL	13	56	63	34	32	6.45	204.45

* May increase due to reclassification of fire chiefs

TABLE 3 - PERSONNEL REQUIRMENTS FOR MANAGEMENT PROGRAMS
(PERSONNEL HOURS)

MANAGEMENT PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. COORDINATE PLAN	2080													64	2144
2. ANNUAL REVISION	80	16	8					24		8				96	232
3. BUDGET/OBJ.	80	24	12	84	48	36		396	24	24				160	888
4.MGT. INFO SYSTEM	40	8	4	28	4	12	12	140	8	12	132	192		32	624
5. PROGRESS REPORT	80				40	12								16	148
6. SERVICE FEES	1200					72								64	1336
7. CERTIFICATION	60	12		40	200	12								16	340
8. REORGANIZATION	48													32	80
9. ICS SYSTEM	20													4	24
10 MGT. SYSTEM	160	72	24	168	40	60	12	420	12	12	132	252		128	1492
11. STAFF MEETINGS	1770	1062	12	708	896	672	96	192						38	5446
TOTAL	5618	1194	60	1028	1228	876	120	1172	44	56	264	444	0	650	12754

TABLE 4 - FIRE PREVENTION PROGRAM PERSONNEL REQUIREMENTS
(personnel hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. FIRE CODE	28					60								32	120
2. PLAN REVIEW	416					490	1470							500	2876
3. HMMPs	12					48									60
4. ENFORCE CODE							1570	3840			3840	3840		500	13590
5. FIRE SYSTEMS	24					48		24						48	144
6. FIRE SYSTEMS							48							48	96
7. CITATION PROGRM	40					80	40							32	192
8. SPRINKLER ORD.	160					160		80						64	464
9. ROOFING	72					80	40							48	240
10. FLEXIBLE CODE	24					48	24							16	112
11. PLAN CHECK	24					16	8								48
12. FUEL MOD. PLAN	56					48	24							16	144
13. SERVICE FEES	208					32	16							16	272
TOTAL	1064	0	0	0	0	1110	3240	3944	0	0	3840	3840	0	1320	18358

TABLE 5 - PUBLIC EDUCATION PROGRAM PERSONNEL REQUIREMENTS
(PERSONNEL HOURS)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. DEVELOP PROGRAM	20				1600	20								800	2440
2. K-12 PROGRAM	20				200										220
3. COMM/IND. PRGRM	64				160	48	800								1072
4. RURAL SELF-HELP	10				280	12	848	1152			1152	1152		1296	5902

TABLE 6 - FIRE SUPPRESSION PROGRAM PERSONNEL REQUIREMENTS
(PERSONNEL HOURS)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. RESPONSE POLICY	120														120
2. 1ST ENG - 5 MIN	80	8	30	11973				76882	60	91	76882	76882	816	16	243720
3. RURAL POLICY	40	48													88
4. RURAL PROTECTION	80													16	96
5. FULL ALARM ■	120	120												32	272
6. MUTUAL/AUTO AID	80	96												8	184
TOTAL	520	272	30	11973	0	0	0	76882	60	91	76882	76882	816	72	244480

TABLE 7 - FIRE INVESTIGATION PROGRAM PERSONNEL REQUIREMENTS
(personnel hours)

MANAGEMENT PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR (VOL)	FRFGHTR (VOL)	CLERICAL	TOTAL
1. CFIRS REPORTS								1185		62					1247
2. ARSON INVEST.							1920							320	2240
3. INVEST. TEAM	20					12	1290							8	1330
TOTAL	20	0	0	0	0	12	3210	1185	0	62	0	0	0	328	4817

TABLE 8 - EMERGENCY MEDICAL SERVICES PERSONNEL REQUIREMENTS
(personnel hours)

MANAGEMENT PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. BLS - 5 MIN.								3232			3232	3232			9696
2. ALS SUPPORT												73		24	97
3. MAINTAIN EMT-10															0
4. HEAVY RESCUE				400	1000			1400	80	120	1680	2520	1920	16	9136
5. DISASTER PLAN	20	8		400	160									32	620
6. EMS DATA SYSTEM	10	24						24							58
TOTAL	30	32	0	800	1160	0	0	4656	80	120	4912	5825	1920	72	19607

TABLE 9 - HAZARDOUS MATERIALS CONTROL PROGRAM PERSONNEL REQUIREMENTS
(Personnel Hours)

MANAGEMENT PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. HAZ MAT PLAN	14	8	8	14	120	12		4						24	204
2. HAZ MAT TRNG	88	56	28	120	432			528	48	72	528	792	648	8	3348
3. RESPONSE TEAM															0
4. ANNUAL INSP.															0
5. PERMIT FEES	40					48								32	120
6. BUSINESS PLANS	8					32		8						8	56
7. REPORT SYSTEM	144													32	176
8. HAZ MAT DATA	4	8				8		4							24
9. EMS/HAZ MATS		16						24						8	48
TOTAL	298	88	36	134	552	100	0	568	48	72	528	792	648	112	3976

TABLE 10 - TRAINING PROGRAM PERSONNEL REQUIREMENTS
(personnel hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR (VOL)	FRFGHTR (VOL)	CLERICAL	TOTAL
1. ENTRY LEVEL	20				160									16	196
2. AFFIRM. ACTION	40	12		40	240	8								32	372
3. PROMOTION REQ.	40	24	24	40	200			160	24		160	160		64	896
4. MAINTAIN SKILLS	640	360	97	1176	1288	360	360	9240	194	292	11088	26928	1152	480	53655
5. EMT-ID	95	48	8	112	240	48	48	560	16	24	672	768	384	32	3055
6. HAZ MAT TRNG	88	32	24	648	8	8	72	528	48	72	720	722	648	16	3634
7. DRIVER TRNG.					160			18	4	6	21	51	96	24	380
8. INSTRUCTORS					540				40						580
9. INSTRUCTOR TRNG				252	400			1260	80						1992
10. TRNG FACILITY	20	12			400									16	448
11. TRNG RECORDS					120				24						144
12. ACCIDENT PREV.	32	12		778	400	330	330	3630			3630	8250		16	17408
13. JAC PROGRAM	48	36		128	128	128	128							16	612
14. DISPATCH TRNG.					240									32	272
TOTAL	1023	536	153	3174	4524	882	938	15396	430	394	16291	36879	2280	744	83644

TABLE 11 - APPARATUS MAINTENANCE AND REPLACEMENT REQUIREMENTS
(personnel hours)

MANAGEMENT PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. RELIABILITY		24						108	24					24	180
2. MAINTENANCE	10	8		288				432	104		9620		700	128	11290
3. REPLACEMENT	10			160				240						64	474
4. MAINT. RECORDS															0
5. MECHANIC TRNG.				16				24	12						52
TOTAL	20	32	0	464	0	0	0	804	140	0	9620	0	700	216	11996

TABLE 12 - FACILITY REQUIREMENTS AND MAINTENANCE
(personnel hours)

MANAGEMENT PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. LOCATION PLAN	120	24		80				120						64	408
2. FACILITY DESIGN	40	48						48						4	140
3. MAINTENANCE				730				5157				7300		120	13307
4. EVALUATE MAINT.	10			80				120						16	226
5. NEW MAINT. PLAN				16				24						16	56
6. MAINT. RECORDS															0
7. EFFICIENCY				24				36							60
TOTAL	170	72	0	930	0	0	0	5505	0	0	0	7300	0	220	14197

TABLE 13 - DISASTER PLANNING REQUIREMENTS
(personnel hours)

MANAGEMENT PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. MULTI-RISK PLAN	40				280									64	384
2. ANNUAL EXERCISE	20	12	12	28	200	12		48	24	24	48	48	24	32	532
3. MULTI-AGENCY				16	120			32			32	32		32	264
4. EOC OPERATIONS	20	48													68
5. EDUCATION					160									16	176
6. FIRE CONTROLS															0
TOTAL	80	60	12	44	760	12	0	80	24	24	80	80	24	144	1424

TABLE 14 - OTHER AGENCY ACTION PLAN REQUIREMENTS
(Personnel Hours)

MANAGEMENT PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. ALCO COMM.	40			48				72						24	184
2. BUILDING DEPT.	56					96		48						48	248
3. PLANNING DEPT.	10					16		8						8	42
4. COUNTY EMS	10				32			32	16					16	106
5. COUNTY HAZ MAT	80	80				32		96						32	320
6. PUBLIC WORKS	10					16		16						16	58
7. SHERIFFS DEPT.	20	32			32			48						24	156
8. PARAMEDIC CO.	80				48			72	24					72	296
9. SCHOOLS	112				64			64						32	272
10. WATER COS.	52					64		64						32	212
TOTAL	470	112	0	48	176	224	0	520	40	0	0	0	0	304	1894

TABLE 15 - TOTAL RESOURCES REQUIRED WITH CURRENT ORGANIZATIONS

(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
MANAGEMENT	5618	1194	60	1028	1228	876	120	1172	44	56	264	444		650	12754
FIRE PREVENTION	1064					1110	3240	3944			3840	3840		1320	18358
SAFETY EDUCATION	114				2240	80	1648	1152			1152	1152		2096	9634
FIRE SUPPRESSION	520	272	30	11973				76882	60	91	76882	76882	816	72	244480
FIRE INVESTIGATION	20					12	3210	1185		62				328	4817
EMERGENCY MEDICAL	30	32		800	1160			4656	80	120	4912	5825	1920	72	19607
HAZ MATS	298	88	36	134	552	100		568	48	72	528	792	648	112	3976
TRAINING	1023	523	153	3174	4524	882	938	15396	430	394	16291	36879	2280	744	83631
APPARATUS	20	32		464				804	140		9620		700	216	11996
FACILITIES	170	72		930				5505				7300		220	14197
DISASTER PLANNING	80	60	12	44	760	12		80	24	24	80	80	24	144	1424
OTHER AGENCIES	470	112		48	176	224		520	40					304	1194
TOTAL	9427	2385	291	18595	10640	3296	9156	111864	866	819	113569	133194	6388	6278	426768
HOURS AVAILABLE	7840	3920	291	17850	1960	1960	5880	99450	866	819	91800	168300	6388	5880	413204
SHORTAGE/SURPLUS	-1587	1535	0	-745	-8680	-1336	-3276	-12414	0	0	-21769	35106	0	-398	-13564

TABLE 16 - TOTAL PROGRAM COSTS FOR CURRENT SYSTEM

In this option resources would be added to meet training and other support service requirements as identified in Table 15. Work loads would be reassigned within the operations division. However, emergency response standards would not be met in the Eastern portion of the County. The total costs are calculated by adding the new program costs to the 1991/92 budget.

1991/92 Budget Costs:

CVFPD	-	\$7,065,698
ECFPD	-	6,338,150
CFP	-	1,381,391
O.E.S.	-	36,850
FFPD	-	965,400
Contracts via Sheriff's Office	-	517,838
Contracts via CAO Office	-	218,776

Total - \$16,524,103

Cost Increases for Current System

Three CDF captains @ CDF-Sunol station	\$175,045/yr.
Relocate ECFPD, Stas. 1 & 3 (\$2,500.000)	500,000/yr.(1)
Crow/Norris Canyon station site (\$100,000)	20,000/yr.(1)
Four additional training officers	243,110/yr.
New Apparatus:	
- Replacement engine(2)	50,000/yr.(1)
- Replacement squad (3)	12,000.yr.(1)
Computer hardware and software (6 stations)	36,600
Training facility	150,000/yr.(1)
Fuel storage (6 stations)	90,000
Emergency Generators (3 stations)	75,000
Medical supplies (11 stations)	16,500

Subtotal \$1,368,255

Total Cost with Current System:

1991/92 budget: \$16,524,103

Additional Costs: 1,368,255
Total \$17,892,358

- (1) Capital costs amortized over a 5 year period.
- (2) First of five engines currently due for replacement. One engine to be replaced each year for first four years. Two engines should be replaced per year for the next six years
- (3) First of two squads currently due for replacement.

ALAMEDA COUNTY FIRE PROTECTION MASTER PLAN

ALTERNATIVES

This section Task 4 identifies alternative organizational structures which can be used to attain the service levels defined in Task 3.

The requirements of the current organizational structure have been previously identified in this task. The resources required exceed the resources available. These alternatives are intended to provide optional methods of attaining the desired service levels through organizational and program modifications.

Alternative #1: Form One County-wide Fire District to serve all unincorporated areas, including Fairview Fire Protection District.

Alternative #2: Form a county-wide fire district to serve all unincorporated areas excluding the Fairview Fire Protection District.

Alternative #3: Form a county-wide fire district to serve all unincorporated areas except the Fairview Fire Protection District. Develop a contract for fire protection services in the eastern portion of county with the cities of Livermore and Pleasanton, in addition to the current contracts with the California Department of Forestry and the Dougherty Regional Fire Authority. The County Fire Patrol station would be closed.

Alternative #4: Form a county-wide fire district and retain the County Fire Patrol district. The administration of the County Fire Patrol would be transferred from the Sheriff to the new fire district.

In each of these alternatives the O.E.S. volunteer fire department and the County Fire Patrol would be consolidated with the Castro Valley and Eden Consolidated fire protection districts to form the Alameda County Fire Protection District.

In each alternative the unincorporated county areas protected by CDF North of the Hayward City limits and West of Highway 680 would be annexed to the fire district. A future fire station site would be purchased near the intersection of Norris Canyon Road and Crow Canyon Road. An automatic aid agreement would be developed with the San Ramon Valley Fire Protection District to improve protection for the Crow Canyon and Norris Canyon areas.

In each alternative it is recommended that the current contracts with the Cities of Hayward and Pleasanton be continued. The county sheriffs department should continue to maintain the current program with one deputy assigned as fire marshal at the Santa Rita jail. An agreement for fire response with the Dougherty Fire Authority should be maintained.

Currently five engines and two patrol units are due for replacement. Each alternative includes the replacement of one engine and one patrol unit in the first year.

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ALTERNATIVE #1 - FORM A COUNTY-WIDE FIRE DISTRICT CONSISTING OF EDEN CONSOLIDATED FPD, CASTRO VALLEY FPD, FAIRVIEW FPD, COUNTY FIRE PATROL AND THE O.E.S. VOLUNTEER FIRE DEPARTMENT.

This alternative would consist of the formation of one county-wide fire district which would protect the unincorporated areas of the county and administer all current and future contracts for fire protection services in the unincorporated areas. A proposed organizational structure is described in Figure 1.

The unincorporated area North of Hayward and West of Highway 680 currently protected by CDF would be protected by the fire district.

An automatic aid agreement would be developed with the San Ramon Valley Fire Protection district for the Crow Canyon and Norris Canyon areas.

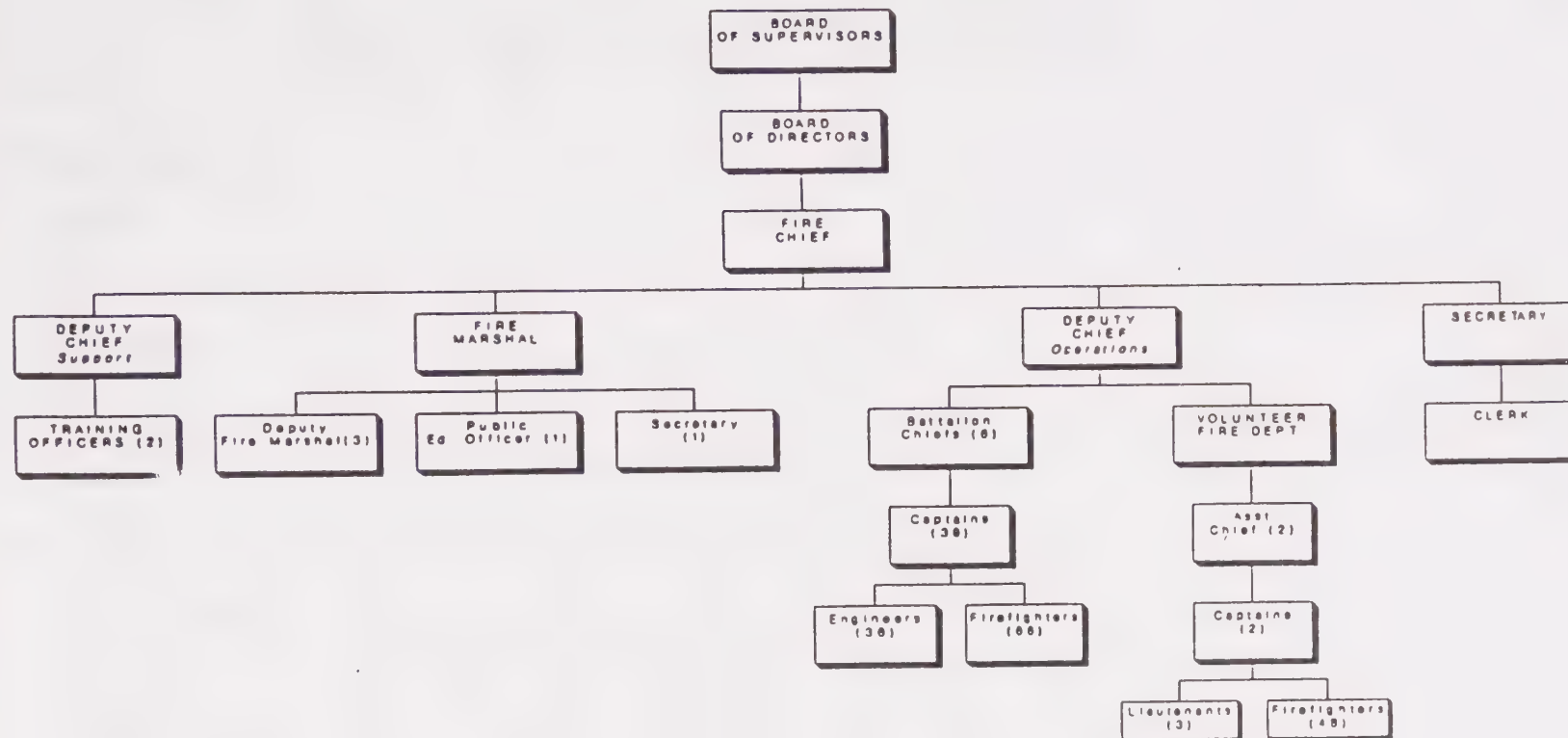
The County Fire Patrol would be consolidated with the Castro Valley Fire Protection District and the Eden Consolidated Fire Protection District. The O.E.S. and Fairview FPD volunteers would be consolidated and would become part of the fire district. In all alternatives the volunteer organization would maintain the current organizational structure under the direction of a volunteer chief officer who would report to the fire chief of the fire district. The volunteers would operate assigned units. The volunteer organization would provide the resources needed for major fire incidents and would provide an entry level development program.

The O.E.S. volunteer fire chief would be reclassified as an assistant chief and would report to the district chief. This would provide two assistant chiefs within the volunteer department. One would be designated as first assistant and would have overall responsibility for the operations of the volunteer department.

This alternative would include an additional fire captain position at the CDF-Sunol station; an additional training officer; a public education officer (deputy fire marshal) to develop and coordinate fire safety, EMS and Haz Mats education programs with emphasis in the rural areas. The positions will be filled by promoting two personnel and reducing the number of firefighters by two.

The number of fire chiefs would be reduced from five to one. The fire chief would be selected by a process to be determined by the board of supervisors. An open competitive examination is recommended. When this selection process is completed the remaining personnel who previously held the rank of fire chief will be reassigned to deputy chief positions. These deputy chief positions would be created solely for this purpose and will be eliminated when the position is vacated. Personnel assigned to these deputy chief positions will serve as administrative staff to the fire chief and will assist with the implementation of the master plan and the related reorganization. The personnel resource requirements of this alternative are listed in tables 17 to 29 and the estimated cost is provided in Table 30.

FIGURE 1 - FIRE DISTRICT ORGANIZATION
ALTERNATIVE #1



ALTERNATIVE #1 - RESOURCE REQUIREMENTS FOR CONSOLIDATED FIRE DISTRICT
STATIONS, FIRST LINE APPARATUS AND PERSONNEL

TITLE	CFP AREA	ECFPD AREA	CVFPD AREA	OES	FFPD AREA	CDF AREA	ALCOFPD STAFF	TOTAL
STATIONS	1	3	4	N/A	1	1		10
ENGINES	1	4	4	3	2	1		15
TRUCK			1					1
SQUAD	1	1	1					3
PATROL	1	1	1	3	1			7
WATER TNRD				1				1
TOTAL	3	6	7	7	3	1		27
CHIEF							1	1
D/C *							2	2
A/C (VOL)				2				2
B/C		3	3			0.2		6.2
TRNG OFF.							2	2
FM							1	1
DFM	1	1	2					4
CAPT.	3	12	15		3	3		36
CAPT-VOL				2				2
LT-VOL				3				3
ENG.	3	15	15		3	3		39
FRFTR	6	20	23		3	3		55
FRFTR-VOL				27	21			48
CLERICAL		1	1		1	0.25		3.25
TOTAL	13	52	59	34	31	9.45	6	204.45

* May increase by three due to the reclassification of fire chiefs.

TABLE 17 - ALTERNATIVE #1 - MANAGEMENT PROGRAM REQUIREMENTS

PROGRAM	(Personnel Hours)														TOTAL
	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	
1. COORDINATE PLAN	416													16	432
2. ANNUAL REVISION	16	4	8							8				24	60
3. BUDGET/OBJ.	16	24	12	72	12	12		468	24	24				40	704
4. MGT. INFO SYSTEM	8	8	4		8	4	4	156	8	12	144	264		24	644
5. PROGRESS REPORT	16				8	8								48	80
6. SERVICE FEES	240					24								16	280
7. CERTIFICATION	12	4		24	40	4								4	88
8. REORGANIZATION	24													8	32
9. ICS SYSTEM	4													1	5
10 MGT. SYSTEM	32	48	24	144	16	20	12	468	12	12	144	264		32	1228
11. STAFF MEETINGS	356	708	12	258	64	194	96	624						38	2350
TOTAL	1140	796	60	498	148	266	112	1716	44	56	288	528	0	251	5903

TABLE 18 - ALTERNATIVE #1 - FIRE PREVENTION PROGRAM REQUIREMENTS

(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. FIRE CODE	4					40								16	60
2. PLAN REVIEW	104					490	1470							1000	3064
3. HMMPs	4					16									20
4. ENFORCE CODE							1570	3840			3840	3840		104	13194
5. FIRE SYSTEMS	24					24								12	60
6. FIRE SYSTEMS						12	48							12	72
7. CITATION PROGRM	10					40								8	58
8. SPRINKLER ORD.	16					80								16	112
9. ROOFING	8					40								12	60
10. FLEXIBLE CODE						24								4	28
11. PLAN CHECK	4					8									12
12. FUEL MOD. PLAN	8					24								4	36
13. SERVICE FEES	48					16								4	68
TOTAL	230	0	0	0	0	814	3088	3840	0	0	3840	3840	0	1192	16844

TABLE 19 - ALTERNATIVE #1 - PUBLIC EDUCATION PROGRAM REQUIREMENTS

(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. DEVELOP PROGRAM					400									200	600
2. K-12 PROGRAM	4				40									16	60
3. COMM/IND. PRGRM	16				40	16	800							4	876
4. RURAL SELF-HELP	2				56	4	816	1344			1248	1248		104	4822
TOTAL	22	0	0	0	536	20	1616	1344	0	0	1248	1248	0	324	6358

TABLE 20 - ALTERNATIVE #1 - FIRE SUPPRESSION PROGRAM REQUIREMENTS

(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. RESPONSE POLICY	24	4						76882	60	91	76882	76882	816	4	243652
2. 1ST ENG - 5 MIN	16	16	30	11973											0
3. RURAL POLICY														4	20
4. RURAL PROTECTION	16													8	72
5. FULL ALARM III	24	40												2	50
6. MUTUAL/AUTO AID	16	32													
TOTAL	96	92	30	11973	0	0	0	76882	60	91	76882	76882	816	21	243825

TABLE 21 - ALTERNATIVE #1 - FIRE INVESTIGATION REQUIREMENTS
(personnel hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. CFIRS REPORTS								1185		62					1247
2. ARSON INVEST.							1920							320	2240
3. INVEST. TEAM	4					4	430							2	440
TOTAL	4	0	0	0	0	4	2350	1185	0	62	0	0	0	322	3927

TABLE 22 - ALTERNATIVE #1 - EMERGENCY MEDICAL SERVICE REQUIREMENTS
(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. BLS - 5 MIN.								3232			3232	3232			9696
2. ALS SUPPORT												73		24	97
3. MAINTAIN EMT-1D															0
4. HEAVY RESCUE				400	200			1560	80	120	1440	2640	1920	16	8376
5. DISASTER PLAN	4	4		8	32									32	80
6. EMS DATA SYSTEM	2	8						24							34
TOTAL	6	12	0	408	232	0	0	4816	80	120	4672	5945	1920	72	18283

TABLE 23 - ALTERNATIVE #1 - HAZARDOUS MATERIALS CONTROL REQUIREMENTS
(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. HAZ MAT PLAN	2	4	8	14	24	4		4						6	66
2. HAZ MAT TRNG	24	56	28	120				648	48	72	600	792	648	8	3044
3. RESPONSE TEAM															0
4. ANNUAL INSP.															0
5. PERMIT FEES	4					24								8	36
6. BUSINESS PLANS						8		8						2	18
7. REPORT SYSTEM	24													8	32
8. HAZ MAT DATA	4	4						4						40	52
9. EMS/HAZ MATS	8							24						2	34
TOTAL	66	64	36	134	24	36	0	688	48	72	600	792	648	74	3282

TABLE 24 - ALTERNATIVE #1 - TRAINING PROGRAM REQUIREMENTS
(personnel hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. ENTRY LEVEL	4				32									4	40
2. AFFIRM. ACTION	8	8		48	48									8	120
3. PROMOTION REQ.	8	16	24	24	40			40	24		40	160		16	392
4. MAINTAIN SKILLS	128	120	97	1008	1288	120	360	10296	194	292	11088	16632	1152	120	42895
5. EMT-ID	16	32	8	96	48	16	48	1011	16	24	1011	813	384	8	3531
6. HAZ MAT TRNG		32	24	48	72			312	48	72	366	504	384	4	1866
7. DRIVER TRNG.					36			20	4	18	18	33	96	6	231
8. INSTRUCTORS					216				40						256
9. INSTRUCTOR TRNG				216	160			1404	80						1860
10. TRNG FACILITY	4	8			80									4	96
11. TRNG RECORDS					24				24					12	60
12. ACCIDENT PREV.	8	8		684	160	110	110	4290			4620	6930		4	16924
13. JAC PROGRAM	12	12		32	32			32						8	128
14. DISPATCH TRNG.					48									8	56
TOTAL	188	236	153	2156	2284	246	518	17405	430	406	17143	25072	2016	202	68455

TABLE 25 - ALTERNATIVE #1 - APPARATUS MAINTENANCE AND REPLACEMENT REQUIREMENTS

(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. RELIABILITY			12											6	18
2. MAINTENANCE	2	4		264							13442		700	32	14444
3. REPLACEMENT	2			80										16	98
4. MAINT. RECORDS															0
5. MECHANIC TRNG.				8											8
TOTAL	4	16	0	352	0	0	0	0	0	0	13442	0	700	54	14568

TABLE 26 - ALTERNATIVE #1 - FACILITY REQUIREMENTS AND MAINTENANCE

(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. LOCATION PLAN	24	8		40				120						16	208
2. FACILITY DESIGN	8	24												4	36
3. MAINTENANCE				730								12194		30	12954
4. EVALUATE MAINT.	2			40										4	46
5. NEW MAINT. PLAN	12			8										4	24
6. MAINT. RECORDS															0
7. EFFICIENCY				12											12
TOTAL	46	32	0	830	0	0	0	120	0	0	0	12194	0	58	13280

TABLE 27 - ALTERNATIVE #1 - DISASTER PLANNING REQUIREMENTS
(personnel hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. MULTI-RISK PLAN	8				56									16	80
2. ANNUAL EXERCISE	4	4	8	8	40	4		12	12	12	12	8	12	8	144
3. MULTI-AGENCY				16	24			16			16	16		4	92
4. EOC OPERATIONS	4	16													20
5. EDUCATION					32									4	36
6. FIRE CONTROLS															0
TOTAL	16	20	8	24	152	4	0	28	12	12	28	24	12	32	372

TABLE 28 - ALTERNATIVE #1 - OTHER AGENCY ACTION PLAN REQUIREMENTS
(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. ALCO COMM.	8			24										6	38
2. BUILDING DEPT.	8					48		48						12	116
3. PLANNING DEPT.	2					8								2	12
4. COUNTY EMS	2				16									4	22
5. COUNTY HAZ MAT	16	40				16								8	80
6. PUBLIC WORKS	2					8								4	14
7. SHERIFFS DEPT.	4	16			8									6	34
8. PARAMEDIC CO.	16				24									24	64
9. SCHOOLS	16				32									8	56
10. WATER COS.	4					32								8	44
TOTAL	78	56	0	24	80	112	0	48	0	0	0	0	0	82	480

TABLE 29 - ALTERNATIVE #1 - TOTAL PERSONNEL REQUIREMENTS

(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
MANAGEMENT	1140	796	60	498	148	266	112	1716	44	56	288	456		251	5831
FIRE PREVENTION	230					814	3088	3840			3840	3840		1192	16844
SAFETY EDUCATION	22				536	20	1616	1344			1152	1152		324	6166
FIRE SUPPRESSION	96	92	30	11973				76882	60	91	76882	76882	816	21	243825
FIRE INVESTIGATION	4					4	2350	1185		62				322	3927
EMERGENCY MEDICAL	6	12		408	232			4816	80	120	4672	4745	1920	72	17083
HAZ MATS	66	64	36	134	24	36		688	48	72	528	792	648	74	3210
TRAINING	188	236	153	2156	2284	246	518	17405	430	406	17143	25072	2016	202	68455
APPARATUS	4	16		352							13442		700	54	14568
FACILITIES	46	32		830				120				12194		58	13280
DISASTER PLANNING	16	20	8	24	152	4		28	12	12	28	24	12	32	372
OTHER AGENCIES	78	56		24	80	112		48						82	480
TOTAL	1896	1324	287	16399	3456	1502	7684	108072	674	819	117975	125157	6112	2684	30,041
HOURS AVAILABLE	1960	3920	287	15300	3920	1960	7840	99450	674	819	107100	160650	6376	5880	416136
SHORTAGE/SURPLUS	64	2596	0	-1099	464	458	156	-8622	0	0	-10875	35493	264	3196	22095

TABLE 30 - TOTAL PROGRAM COSTS FOR ALTERNATIVE #1

1991/92 Budget Costs:

CVFPD	-	\$7,065,698
ECFPD	-	6,338,150
CFP	-	1,381,391
O.E.S.	-	36,850
FFPD	-	828,993
Contracts via Sheriff's Office	-	517,838
<u>Contracts via CAO Office</u>	-	<u>218,776</u>
Subtotal		\$16,387,696

Cost Increases for Alternative #1:

Three CDF captains @ CDF-Sunol station	\$175,045/yr.
Relocate ECFPD Stas. 1 & 3 (\$2,500,000)	500,000/yr. (1)
Crow/Norris Canyon fire station site (\$100,000)	20,000/yr. (1)
One additional training officer	61,000/yr.
One additional deputy fire marshal (Pub. Ed.)	61,000/yr.
New Apparatus:	
- Replacement engine (2)	50,000/yr. (1)
- Replace squad (3)	12,000/yr. (1)
Computer hardware and software (6 stations)	36,600
Training facility (\$750,000)	150,000/yr. (1)
Fuel storage (5 stations)	75,000
Emergency generators (2 stations)	50,000
<u>Medical supplies (10 stations)</u>	<u>15,000</u>
Subtotal	\$1,205,645

Total Cost of Alternative #1:

1991/92 budget:	\$16,387,696
Additional Costs:	1,205,645
Two firefighter positions:	-111,290
Fire chiefs positions:	(see note)
Total	\$17,482,051

- (1) Capital costs amortized over a 5 year period
- (2) First of five engines currently due for replacement. One engine to be replaced each year for first four years. Two engines replaced per year for the next six years.
- (3) Two squads currently due for replacement.

The training officer and deputy fire marshal positions would be filled by promoting two personnel to those positions thereby reducing the number of firefighters by two, which would offset the cost of these positions by \$111,290.

Note: A salary savings will occur due to the reduction of fire chiefs positions. The time at which this saving is realized and the amount of the savings will depend upon the person selected as fire chief and the number of personnel to be reclassified as deputy chief. It is anticipated that the personnel will fill these positions for a few years. During this time these personnel will provide the management staff needed to implement reorganization and improved management programs. The potential saving related to the current fire chiefs salaries are:

CVFPD	- \$133,000
EDFPD	- 130,000
FFPD	- 84,000
<u>CFP</u>	<u>- 68,000</u>

Total	\$415,000
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ALTERNATIVE #2

FORM A COUNTY FIRE PROTECTION DISTRICT CONSISTING OF EDEN CONSOLIDATED FPD, CASTRO VALLEY FPD, COUNTY FIRE PATROL AND THE O.E.S. VOLUNTEER FIRE DEPARTMENT

This alternative would consist of the formation of a county fire protection district which would administer fire protection programs including the current and future contracts for fire protection services. This alternative is similar to Alternative #1 with the exception that it does not include the Fairview Fire Protection District.

The unincorporated area North of the Hayward city limits and West of Highway 680 which is currently protected by CDF would be protected by the fire district. An automatic aid agreement would be developed with the San Ramon Valley Fire Protection district to improve the resource responses in that area. A future fire station site would be purchased in the Crow Canyon area.

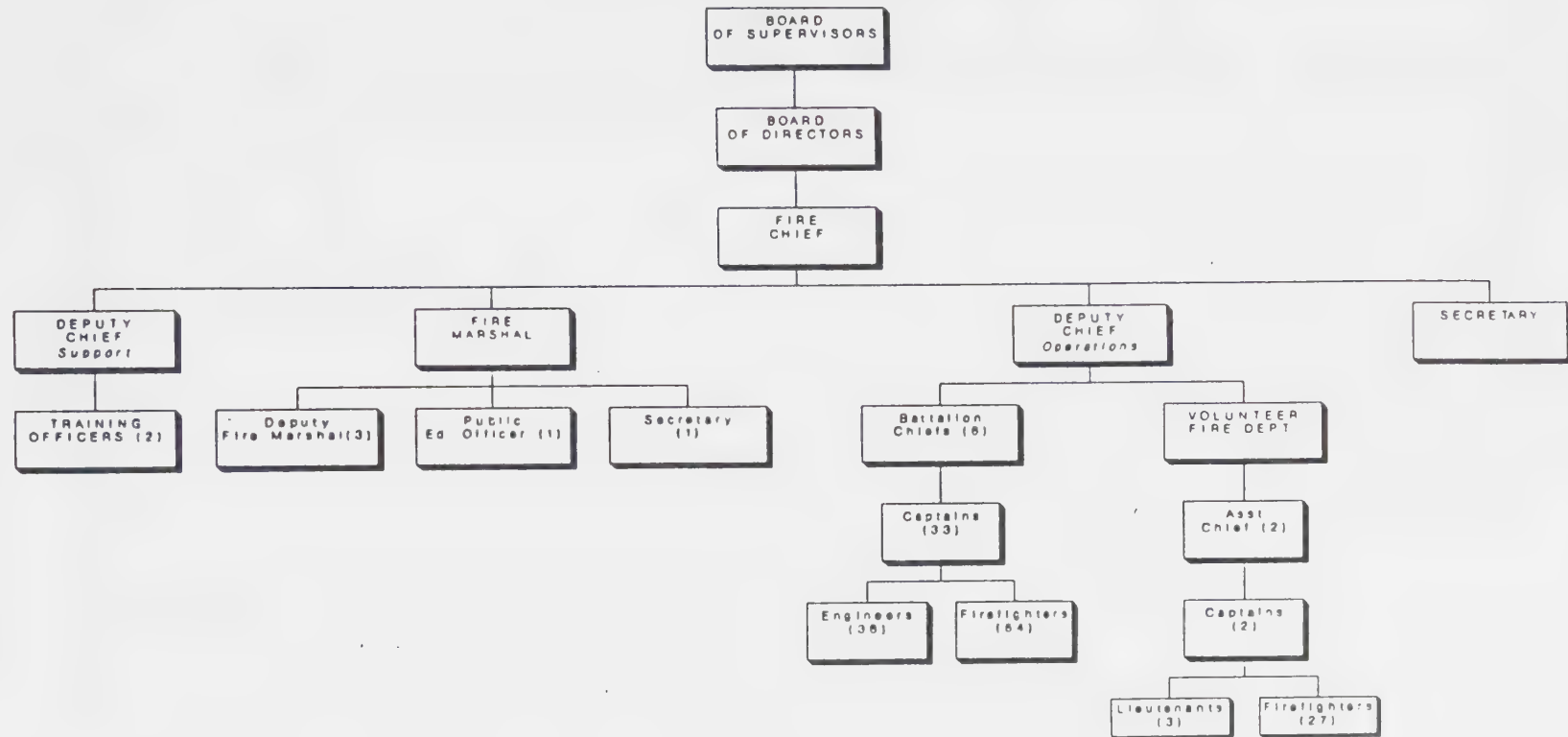
This alternative also includes the increase of one fire captain position at the CDF-Sunol station. Two firefighter positions would be reclassified to training officer and deputy fire marshal. The deputy fire marshal would provide fire prevention and fire safety education services in the Eastern portions of the county.

The County Fire Patrol and the O.E.S. volunteer department would be consolidated with the CVFPD and ECFPD as outlined in Alternative #1.

The personnel requirements of this alternative are listed in tables 31 to 43. The estimated cost of this alternative is outlined in Table 44.

The same organizational structure is recommended for this alternative as that described for Alternative #1, with the exception that the FFPD personnel are not included. (See Figure 2)

**FIGURE 2 - FIRE DISTRICT ORGANIZATION
ALTERNATIVE #2**



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ALTERNATIVE #2 -RESOURCE REQUIREMENTS FOR CONSOLIDATED FIRE DISTRICT
STATIONS, FIRST LINE APPARATUS AND PERSONNEL

TITLE	CFP AREA	ECFPD AREA	CVFPD AREA	OES	FFPD AREA	CDF AREA	ALCOFPD STAFF	TOTAL
STATIONS	1	3	4	N/A	0	1		9
ENGINES	1	4	4	3	0	1		13
TRUCK			1					1
SQUAD	1	1	1					3
PATROL	1	1	1	3	0			6
WATER TNRD				1				1
TOTAL	3	6	7	7	0	1		24
CHIEF							1	1
D/C *							2	2
A/C (VOL)				2				2
B/C		3	3			0.2		6.2
TRNG OFF.							2	2
FM							1	1
DFM	1	1	2					4
CAPT.	3	12	15		0	3		33
CAPT-VOL				2				2
LT-VOL				3				3
ENG.	3	15	15		0	3		36
FRFTR	6	20	23		0	3		52
FRFTR-VOL				27	0			27
CLERICAL		1	1		0	0.25		2.25
TOTAL	13	52	59	34	0	9.45	6	173.45

* May increase by two due to the reclassification of fire chiefs.

TABLE 31 - ALTERNATIVE #2 - MANAGMENT PROGRAM REQUIREMENTS

(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. COORDINATE PLAN	416													16	432
2. ANNUAL REVISION	16	4	8							8				24	60
3. BUDGET/OBJ.	16	24	12	72	12	12		432	24	24				40	668
4. MGT. INFO SYSTEM	8	8	4		8	4	4	156	8	12	144	264		24	644
5. PROGRESS REPORT	16				8	8								48	80
6. SERVICE FEES	240					24								16	280
7. CERTIFICATION	12	4		24	40	4								4	88
8. REORGANIZATION	24													8	32
9. ICS SYSTEM	4													1	5
10 MGT. SYSTEM	32	48	24	144	16	20	12	432	12	12	144	240		32	1168
11. STAFF MEETINGS	356	708	12	258	64	194	96	576						38	2302
TOTAL	1140	796	60	498	148	266	112	1596	44	56	288	504	0	251	5759

TABLE 32 - ALTERNATIVE #2 - FIRE PREVENTION PROGRAM REQUIREMENTS

(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. FIRE CODE	4					40								16	60
2. PLAN REVIEW	104					490	1430							1000	3024
3. HMMPs	4					16									20
4. ENFORCE CODE							1535	3790			3790	3790		104	13009
5. FIRE SYSTEMS	24					24								12	60
6. FIRE SYSTEMS						12	48							12	72
7. CITATION PROGRM	10					40								8	58
8. SPRINKLER ORD.	16					80								16	112
9. ROOFING	8					40								12	60
10. FLEXIBLE CODE						24								4	28
11. PLAN CHECK	4					8									12
12. FUEL MOD. PLAN	8					24								4	36
13. SERVICE FEES	48					16								4	68
TOTAL	230	0	0	0	0	814	3013	3790	0	0	3790	3790	0	1192	16619

TABLE 33 - ALTERNATIVE #2 - PUBLIC EDUCATION PROGRAM REQUIREMENTS

(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. DEVELOP PROGRAM					400									200	600
2. K-12 PROGRAM	4				40									16	60
3. COMM/IND. PRGRM	16				40	16	800							4	876
4. RURAL SELF-HELP	2				56	4	816	1152			1152	1152		104	4438
TOTAL	22	0	0	0	536	20	1616	1152	0	0	1152	1152	0	324	5974

TABLE 34 - ALTERNATIVE #2 - FIRE SUPPRESSION PROGRAM REQUIREMENTS

(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. RESPONSE POLICY	24	4												3	31
2. 1ST ENG - 5 MIN	16	16	30	11973				71042	60	91	71042	71042	816	4	226132
3. RURAL POLICY															0
4. RURAL PROTECTION	16													4	20
5. FULL ALARM III	24	40												8	72
6. MUTUAL/AUTO AID	16	32												2	50
TOTAL	96	92	30	11973	0	0	0	71042	60	91	71042	71042	816	21	226305

TABLE 35 - ALTERNATIVE #2 - FIRE INVESTIGATION REQUIREMENTS
(personnel hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. CFIRS REPORTS								1125		62					1187
2. ARSON INVEST.							1920							320	2240
3. INVEST. TEAM	4					4	430							2	440
TOTAL	4	0	0	0	0	4	2350	1125	0	62	0	0	0	322	3867

TABLE 36 - ALTERNATIVE #2 - EMERGENCY MEDICAL SERVICES REQUIREMENTS
(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. BLS - 5 MIN.								3032			3032	3032			9096
2. ALS SUPPORT												70		24	94
3. MAINTAIN EMT-1D															0
4. HEAVY RESCUE				400	200			1560	80	120	1440	2400	1920	16	8136
5. DISASTER PLAN	4	4		8	32									32	80
6. EMS DATA SYSTEM	2	8						24							34
TOTAL	6	12	0	408	232	0	0	4616	80	120	4472	5502	1920	72	17440

TABLE 37 - ALTERNATIVE #2 - HAZARDOUS MATERIALS CONTROL REQUIREMENTS
(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. HAZ MAT PLAN	2	4	8	14	24	4		4						6	66
2. HAZ MAT TRNG	24	56	28	120				576	48	72	600	792	648	8	2972
3. RESPONSE TEAM															0
4. ANNUAL INSP.															0
5. PERMIT FEES	4					24								8	36
6. BUSINESS PLANS						8		8						2	18
7. REPORT SYSTEM	24													8	32
8. HAZ MAT DATA	4	4						4						40	52
9. EMS/HAZ MATS	8							24						2	34
TOTAL	66	64	36	134	24	36	0	616	48	72	600	792	648	74	3210

TABLE 38 - ALTERNATIVE #2 - TRAINING PROGRAM REQUIREMENTS
(personnel hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. ENTRY LEVEL	4				32									4	40
2. AFFIRM. ACTION	8	8		48	48									8	120
3. PROMOTION REQ.	8	16	24	24	40			40	24		40	160		16	392
4. MAINTAIN SKILLS	128	120	97	1008	1288	120	360	9504	194	292	9504	15840	1152	120	39727
5. EMT-ID	16	32	8	96	48	16	48	966	16	24	966	768	384	8	3396
6. HAZ MAT TRNG		32	24	48	72			288	48	72	288	360	384	4	1620
7. DRIVER TRNG.					36			18	4	18	15	30	96	6	223
8. INSTRUCTORS					216				40						256
9. INSTRUCTOR TRNG				216	160			1296	80						1752
10. TRNG FACILITY	4	8			80									4	96
11. TRNG RECORDS					24				24					12	60
12. ACCIDENT PREV.	8	8		684	160	110	110	3690			3630	6600		4	15004
13. JAC PROGRAM	12	12		32	32			32						8	128
14. DISPATCH TRNG.					48									8	56
TOTAL	188	236	153	2156	2284	246	518	15834	430	406	14443	23758	2016	202	62870

TABLE 39 - ALTERNATIVE #2 - APPARATUS MAINTENANCE AND REPLACEMENT REQUIREMENTS

(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. RELIABILITY		12												6	18
2. MAINTENANCE	2	4		264							12408		700	32	13410
3. REPLACEMENT	2			80										16	98
4. MAINT. RECORDS															0
5. MECHANIC TRNG.				8											8
TOTAL	4	16	0	352	0	0	0	0	0	0	12408	0	700	54	13534

TABLE 40 - ALTERNATIVE #2 - FACILITY REQUIREMENTS AND MAINTENANCE

(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. LOCATION PLAN	24	8		40				120						16	208
2. FACILITY DESIGN	8	24												4	36
3. MAINTENANCE				730								11256		30	12016
4. EVALUATE MAINT.	2			40										4	46
5. NEW MAINT. PLAN	12			8										4	24
6. MAINT. RECORDS															0
7. EFFICIENCY				12											12
TOTAL	46	32	0	830	0	0	0	120	0	0	0	11256	0	58	12342

TABLE 41 - ALTERNATIVE #2 - DISASTER PLANNING REQUIREMENTS
(personnel hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. MULTI-RISK PLAN	8				56									16	80
2. ANNUAL EXERCISE	4	4	8	8	40	4		12	12	12	12	8	12	8	144
3. MULTI-AGENCY				16	24			16			16	16		4	92
4. EOC OPERATIONS	4	16													20
5. EDUCATION					32									4	36
6. FIRE CONTROLS															0
TOTAL	16	20	8	24	152	4	0	28	12	12	28	24	12	32	372

TABLE 42 - ALTERNATIVE #2 - OTHER AGENCY ACTION PLAN REQUIREMENTS
(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. ALCO COMM.	8			24										6	38
2. BUILDING DEPT.	8					48		48						12	116
3. PLANNING DEPT.	2					8								2	12
4. COUNTY EMS	2				16									4	22
5. COUNTY HAZ MAT	16	40				16								8	80
6. PUBLIC WORKS	2					8								4	14
7. SHERIFFS DEPT.	4	16			8									6	34
8. PARAMEDIC CO.	16				24									24	64
9. SCHOOLS	16				32									8	56
10. WATER COS.	4					32								8	44
TOTAL	78	56	0	24	80	112	0	48	0	0	0	0	0	82	480

TABLE 43 - ALTERNATIVE #2 - TOTAL PERSONNEL REQUIREMENTS

(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
MANAGEMENT	1140	796	60	498	148	266	112	1596	44	56	288	504		251	5759
FIRE PREVENTION	230					814	3013	3790			3790	3790		1192	16619
SAFETY EDUCATION	22				536	20	1616	1152			1152	1152		324	5974
FIRE SUPPRESSION	96	92	30	11973				71042	60	91	71042	71042	816	4	226288
FIRE INVESTIGATION	4					4	2350	1125		62				322	3867
EMERGENCY MEDICAL	6	12		408	232			4816	80	120	4472	5502	1920	72	17640
HAZ MATS	66	64	36	134	24	36		616	48	72	600	792	648	74	3210
TRAINING	188	236	153	2156	2284	246	518	15834	430	406	14443	23758	2016	202	62870
APPARATUS	4	16		352							12408		700	54	13534
FACILITIES	46	32		830				120				11256		58	12342
DISASTER PLANNING	16	20	8	24	152	4		28	12	12	28	24	12	32	372
OTHER AGENCIES	78	56		24	80	112		48						82	480
TOTAL	1896	1324	287	16399	3456	1502	7609	100167	674	819	108223	117820	6112	2667	368955
HOURS AVAILABLE	1960	3920	287	15300	3920	1960	7840	91800	674	819	99450	145350	6376	3920	383576
SHORTAGE/SURPLUS	64	2596	0	-1099	464	458	231	-8367	0	0	-8773	27530	264	1253	14621

TABLE 44 - TOTAL PROGRAM COSTS FOR ALTERNATIVE #2

1991/92 Budget Costs

CVFPD	- \$7,065,698
ECFPD	- 6,338,150
CFP	- 1,381,391
O.E.S.	- 36,850
Contracts via Sheriff's Office	- 517,838
<u>Contracts via CAO Office</u>	<u>- 218,776</u>
Subtotal	\$15,558,703

Alternative #2 Cost Increases:

Three CDF captains @ CDF-Sunol station	\$175,045/yr.
Relocate ECFPD Stas. 1 & 3 (\$2,500,000)	500,000/yr. (1)
Crow/Norris Canyon station site (\$100,000)	20,000/yr. (1)
One additional training officer	61,000/yr.
One additional deputy fire marshal	61,000/yr.
New Apparatus:	
- Replacement engine	50,000/yr. (1)
- Replacement squad	12,000/yr. (1)
Computer hardware and software (6 sta.)	36,600
Training facility	150,000/yr. (1)
Fuel storage (5 stations)	75,000
Emergency generators (1 stations)	25,000
<u>Medical supplies (9 stations)</u>	<u>13,500</u>
Subtotal	\$1,179,145

Total Cost of Alternative #2:

1991/92 Budget	\$15,416,350
Additional Costs	1,179,145
Two firefighter positions	-111,290
<u>Fire chiefs positions</u>	<u>(see note)</u>
Total	\$16,484,205

The training officer and deputy fire marshal positions would be filled by promoting two personnel and reducing the number of firefighters by two, which would offset the cost of these positions by \$111,290.

(1) Capital costs amortized over a 5 year period.

ALTERNATIVE #3

FORM A COUNTY FIRE PROTECTION DISTRICT CONSISTING OF EDEN CONSOLIDATED FPD, CASTRO VALLEY FPD, COUNTY FIRE PATROL AND THE O.E.S. VOLUNTEER FIRE DEPARTMENT. CONTRACT FOR FIRE PROTECTION SERVICES IN THE EASTERN PORTION OF THE COUNTY.

Alternative three would include the formation of an Alameda County Fire Protection District, closing the County Fire Patrol station, and contracting for fire protection services in the Eastern portion of the county. The unincorporated area currently protected by CDF which is North of the Hayward city limits and West of highway 680 will be included in the new district.

The fire district would consist of all fire protection agencies in the unincorporated areas except the Fairview Fire Protection District and the Redwood Fire District. A proposed organizational structure is described in Figure 3.

As in alternative #2 two firefighter positions would be reclassified to one training officer and one deputy fire marshal.

The volunteer fire chief would be reclassified as assistant chief. The volunteer department would operate volunteer companies under the direction of the volunteer chief for management purposes and under the duty chief officer for incident responses.

A contract would be developed with the City of Livermore for fire suppression, EMS and Haz Mat responses to incidents in the unincorporated areas currently protected by the County Fire Patrol. The county would continue to contract with CDF for protection in the Sunol area. The current contracts with Hayward, Pleasanton, and Dougherty Fire Authority would also be continued. All contracts would be administered by the fire chief of the Alameda County Fire Protection District. The service level standards adopted by the board of supervisors will be applicable to all contracts.

The cost of the proposed contract to be developed with the City of Livermore will be negotiated and is estimated to be \$400,000 to \$800,000. For the sake of this report the contract is estimated at \$800,000.

The County Fire Patrol facility would be closed and the property would be sold to offset the cost of purchasing a fire station site in the Crow Canyon area. It has been estimated that \$350,000 would be received for the sale of this property.

The district would be served by eight district stations and the stations operated under contract by CDF, Dougherty Fire Authority, City of Pleasanton and the City of Livermore.

O.E.S. apparatus would be relocated to district stations from the Fairmont Avenue facility. One unit would be maintained at the Santa Rita Jail. One unit would be housed at the CDF-Sunol facility and a volunteer company would be organized in the Sunol area to increase service.

The county fire department would maintain fire code enforcement and fire safety education programs throughout the unincorporated areas. Fire safety education and "built-in" fire protection would be given special emphasis in the rural areas. Company level fire prevention services should be provided by those agencies such as CDF which are funded under contract for fire, EMS and Haz Mats operations.

Four optional methods of implementing alternative 3 have been identified. These options relate to the reassignment of the thirteen County Fire Patrol Personnel:

Option 3A: The county engine company at the Sunol CDF station would be staffed with three district personnel. A contractual agreement would be developed for joint use of the facility. The current agreement with CDF for staffing of the engine would be discontinued.

- Nine personnel would be relocated to the Sunol CDF facility .
- Two personnel would be assigned to the district to maintain minimum staffing throughout the district.
- Two personnel would be assigned to provide fire prevention and fire safety education programs throughout the district.

Option 3B: The proposed contract with the city of Livermore would include the transfer of nine personnel from the County Fire Patrol to City of Livermore. These personnel would become permanent employees of the city. Part of the contract cost would include the personnel costs of these positions.

- Nine personnel would be employed by the City of Livermore.
- Two personnel would be assigned to maintain minimum district staffing.
- Two personnel would be assigned to provide fire prevention and fire safety education programs throughout the district.

Option 3C: The proposed contract with the City of Livermore would include the employment of six personnel from the County Fire Patrol by the City of Livermore. These personnel would become permanent employees of the city. Part of the contract cost would include the personnel costs of these positions.

- Six personnel would be employed by the City of Livermore.
- One person would be assigned to the training division to conduct specialized training, such as volunteer training,

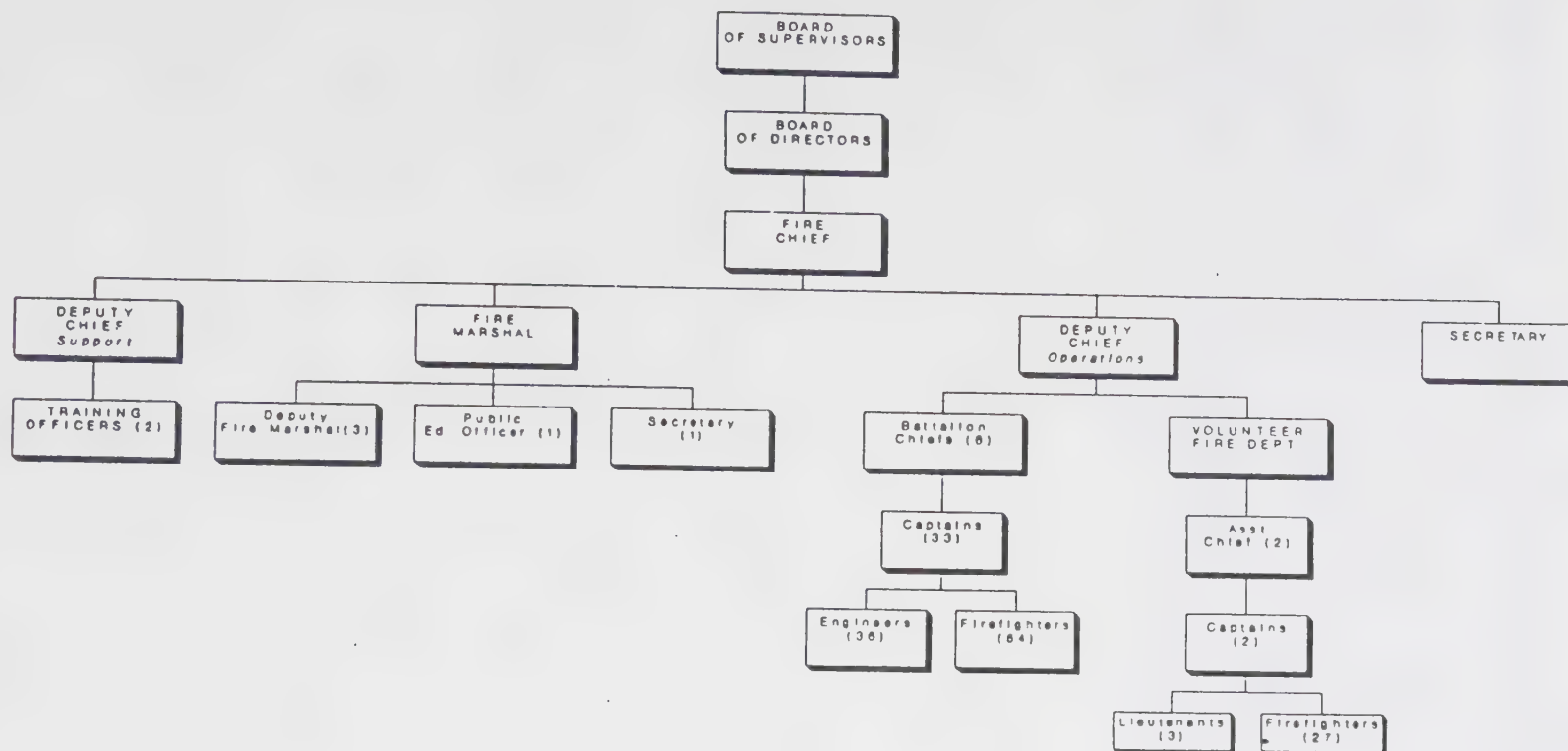
heavy rescue training, etc.

- Three personnel would be assigned to maintain minimum staffing.
- Three personnel would be assigned to fire prevention and fire safety education throughout the district.

Option 3D: Under this option a contract would be developed with the City of Livermore and nine of the thirteen positions from CFP would be assigned to staff an additional engine at the current Castro Valley fire station #2. This would improve the resource response to the Crow Canyon and Norris Canyon areas.

- Nine personnel would be assigned to fire station #2.
- Two personnel would be assigned to fire prevention and fire safety education programs throughout the district.
- Two personnel would be assigned to maintain minimum staffing.

FIGURE 3 - FIRE DISTRICT ORGANIZATION
ALTERNATIVE #3



ALTERNATIVE #3A - RESOURCE REQUIREMENTS FOR CONSOLIDATED FIRE DISTRICT
STATIONS AND FIRST LINE APPARATUS

TITLE	CFP AREA	ECFPD AREA	CVFPD AREA	OES	CDF AREA	ALCOFPD STAFF	TOTAL
STATIONS	0	3	4	N/A	1		8
ENGINES	0	4	4	3	1		12
TRUCK			1				1
SQUAD	0	1	1				2
PATROL	0	1	1	2			4
WATER TNRD				1			1
TOTAL	0	6	7	7	1		21
CHIEF						1	1
D/C *						2	2
A/C (VOL)				2			2
B/C						6	6
TRNG OFF.						2	2
FM						1	1
DFM	2	2	2				6
CAPT.		12	15		3		30
CAPT-VOL				2			2
LT-VOL				3			3
ENG.		15	15		3		33
FRFTR		22	23		3		48
FRFTR-VOL				27			27
CLERICAL						2	2
TOTAL	2	51	55	34	9	14	165

* May increase due to reclassification of fire chiefs

ALTERNATIVE #3B - RESOURCE REQUIREMENTS FOR CONSOLIDATED FIRE DISTRICT
STATIONS, FIRST LINE APPARATUS AND PERSONNEL

TITLE	CFP AREA	ECFPD AREA	CVFPD AREA	OES	CDF AREA	ALCOFPD STAFF	TOTAL
STATIONS	0	3	4	N/A	1		8
ENGINES	0	4	4	3	1		12
TRUCK			1				1
SQUAD	0	1	1				2
PATROL	0	1	1	2			4
WATER TNRD				1			1
TOTAL	0	6	7	7	1		21
CHIEF						1	1
D/C *						2	2
A/C (VOL)				2			2
B/C					0.02	6	6.02
TRNG OFF.						2	2
FM						1	1
DFM	2	2	2				6
CAPT.		12	15		3		30
CAPT-VOL				2			2
LT-VOL				3			3
ENG.		15	15		3		33
FRFTR		22	23		3		48
FRFTR-VOL				27			27
CLERICAL					0.25	2	2.25
TOTAL	2	51	55	34	9.27	14	165.27

* May increase due to reclassification of fire chiefs

ALTERNATIVE #3C - RESOURCE REQUIRMENTS FOR CONSOLIDATED FIRE DISTRICT
STATIONS AND FIRST LINE APPARATUS

TITLE	CFP AREA	ECFPD AREA	CVFPD AREA	OES	CDF AREA	ALCOFPD STAFF	TOTAL
STATIONS	0	3	4	N/A	1		8
ENGINES	0	4	4	3	1		12
TRUCK			1				1
SQUAD	0	1	1				2
PATROL	0	1	1	2			4
WATER TNR				1			1
TOTAL	0	6	7	6	1		20
CHIEF						1	1
D/C *						2	2
A/C (VOL)				2			2
B/C					0.2	6	6.2
TRNG OFF.						3	3
FM						1	1
DFM	2	2	3				7
CAPT.		12	15		3		30
CAPT-VOL				2			2
LT-VOL				3			3
ENG.		15	15		3		33
FRFTR		24	24		3		51
FRFTR-VOL				27			27
CLERICAL					0.25	2	2.25
TOTAL	2	53	57	34	9.45	15	170.45

* May increase by two due to reclassification of fire chiefs.

ALTERNATIVE #3D - RESOURCE REQUIREMENTS FOR CONSOLIDATED FIRE DISTRICT
STATIONS AND FIRST LINE APPARATUS

TITLE	CFP AREA	ECFPD AREA	CVFPD AREA	OES	CDF AREA	ALCOFPD STAFF	TOTAL
STATIONS	0	3	4	N/A	1		8
ENGINES	0	4	5	3	1		13
TRUCK			1				1
SQUAD	0	1	1				2
PATROL	0	1	1	2			4
WATER TNRD				1			1
TOTAL	0	6	8	6	1		21
CHIEF						1	1
D/C *						2	2
A/C (VOL)				2			2
B/C					0.2	6	6.2
TRNG OFF.						2	2
FM						1	1
DFM	2	2	2				6
CAPT.		12	18		3		33
CAPT-VOL				2			2
LT-VOL				3			3
ENG.		15	18		3		36
FRFTR		24	27		3		54
FRFTR-VOL				27			27
CLERICAL					0.25	2	2.25
TOTAL	2	53	65	34	9.45	14	177.45

* May increase by two due to reclassification of fire chiefs.

TABLE 45 - ALTERNATIVE #3 - MANAGEMENT PROGRAM REQUIREMENTS

PROGRAM	(Personnel Hours)														TOTAL
	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	
1. COORDINATE PLAN	416													16	432
2. ANNUAL REVISION	16	4	8							8				24	60
3. BUDGET/OBJ.	16	24	12	72	12	12		396	24	24				40	632
4. MGT. INFO SYSTEM	8	8	4		8	4	4	132	8	12	144	216		24	572
5. PROGRESS REPORT	16				8	8								48	80
6. SERVICE FEES	240					24								16	280
7. CERTIFICATION	12	4		24	40	4								4	88
8. REORGANIZATION	24													8	32
9. ICS SYSTEM	4													1	5
10 MGT. SYSTEM	32	48	24	144	16	20	12	396	12	12	144	216		32	1108
11. STAFF MEETINGS	356	708	12	258	64	194	96	528						72	2254
TOTAL	1140	796	60	498	148	266	112	1452	44	56	288	432	0	251	5543

TABLE 46 - ALTERNATIVE #3 - FIRE PREVENTION PROGRAM REQUIREMENTS

PROGRAM	(Personnel Hours)													
	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL
1. FIRE CODE	4					40								16
2. PLAN REVIEW	104					490	1430							1000
3. HMMPs	4					16								
4. ENFORCE CODE							1535	3790			3790	3790		104
5. FIRE SYSTEMS	24					24								12
6. FIRE SYSTEMS						12	48							12
7. CITATION PROGRM	10					40								8
8. SPRINKLER ORD.	16					80								16
9. ROOFING	8					40								12
10. FLEXIBLE CODE						24								4
11. PLAN CHECK	4					8								
12. FUEL MOD. PLAN	8					24								4
13. SERVICE FEES	48					16								4
TOTAL	230	0	0	0	0	814	3013	3790	0	0	3790	3790	0	1192
														16619

PROGRAM											
CHIEF	DEPUTY	ASST. BATTALION TRAINING	FIRE	DEPUTY	CAPTAIN	CAPTAIN	LIEUT.	ENGINEER	FRFGHTR	FRFGHTR	CLERICAL
CHIEF	CHIEF-VOL	CHIEF	OFFICER	MARSHAL	FM	(CAREER)	(VOL)	(VOL)	(VOL)	(VOL)	TOTAL
1. BLS - 5 MIN.	2900							2900	2900		8700
2. ALS SUPPORT								70		24	94
3. MAINTAIN EMT-10											0
4. HEAVY RESCUE	400	200				1320	80	1440	2160	1920	7656
5. DISASTER PLAN	4		8							32	80
6. EMS DATA SYSTEM	2		8			24					34
TOTAL	6	12	0	408	232	0	0	4244	80	120	4340
								5130	1920	72	16564

TABLE 50 - ALTERNATIVE #3 - EMERGENCY MEDICAL SERVICES REQUIREMENTS

PROGRAM											
CHIEF	DEPUTY	ASST. BATTALION TRAINING	FIRE	DEPUTY	CAPTAIN	CAPTAIN	LIEUT.	ENGINEER	FRFGHTR	FRFGHTR	CLERICAL
CHIEF	CHIEF-VOL	CHIEF	OFFICER	MARSHAL	FM	(CAREER)	(VOL)	(VOL)	(VOL)	(VOL)	TOTAL
1. CFIRS REPORTS	861							62			923
2. ARSON INVEST.		1920								320	2240
3. INVEST. TEAM	4		4		430					2	440
TOTAL	4	0	0	0	4	2350	861	62	0	0	3603
										322	

TABLE 49 - ALTERNATIVE #3 - FIRE INVESTIGATION REQUIREMENTS

(personnel hours)

TABLE 47 - ALTERNATIVE #3 - PUBLIC EDUCATION PROGRAM REQUIREMENTS

PROGRAM	(Personnel Hours)														TOTAL
	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	
1. DEVELOP PROGRAM					400									200	600
2. K-12 PROGRAM	4				40									16	60
3. COMM/IND. PRGRM	16				40	16	800							4	876
4. RURAL SELF-HELP	2				56	4	816	960			960	960		104	3862
TOTAL	22	0	0	0	536	20	1616	960	0	0	960	960	0	324	5398

TABLE 48 - ALTERNATIVE #3 - FIRE SUPPRESSION PROGRAM REQUIREMENTS

PROGRAM	(Personnel Hours)														TOTAL
	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	
1. RESPONSE POLICY	24	4												3	31
2. 1ST ENG - 5 MIN	16	16	30	11973				64900	60	91	64900	64900	816	4	207706
3. RURAL POLICY															0
4. RURAL PROTECTION	16													4	20
5. FULL ALARM #	24	40												8	72
6. MUTUAL/AUTO AID	16	32												2	50
TOTAL	96	92	30	11973	0	0	0	64900	60	91	64900	64900	816	21	207879

TABLE 51 - ALTERNATIVE #3 - HAZARDOUS MATERIALS CONTROL REQUIREMENTS
(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. HAZ MAT PLAN	2	4	8	14	24	4		4						6	66
2. HAZ MAT TRNG	24	56	28	120				576	48	72	600	792	648	8	2972
3. RESPONSE TEAM															0
4. ANNUAL INSP.															0
5. PERMIT FEES	4					24								8	36
6. BUSINESS PLANS						8		8						2	18
7. REPORT SYSTEM	24													8	32
8. HAZ MAT DATA	4	4						4						40	52
9. EMS/HAZ MATS	8							24						2	34
TOTAL	66	64	36	134	24	36	0	616	48	72	600	792	648	74	3210

TABLE 52 -ALTERNATIVE #3 - TRAINING PROGRAM REQUIREMENTS
(personnel hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. ENTRY LEVEL	4				32									4	40
2. AFFIRM. ACTION	8	8		48	48									8	120
3. PROMOTION REQ.	8	16	24	24	40			40	24		40	160		16	392
4. MAINTAIN SKILLS	128	120	97	1008	1288	120	360	8712	194	292	9504	14256	1152	120	37351
5. EMT-ID	16	32	8	96	48	16	48	966	16	24	966	768	384	8	3396
6. HAZ MAT TRNG		32	24	48	72			264	48	72	288	432	384	4	1668
7. DRIVER TRNG.					36			17	4	18	18	27	96	6	222
8. INSTRUCTORS					216				40						256
9. INSTRUCTOR TRNG				216	160			1188	80						1644
10. TRNG FACILITY	4	8			80									4	96
11. TRNG RECORDS					24				24					12	60
12. ACCIDENT PREV.	8	8		684	160	110	110	3630			40	5940		4	10694
13. JAC PROGRAM	12	12		32	32			32						8	128
14. DISPATCH TRNG.					48									8	56
TOTAL	188	236	153	2156	2284	246	518	14849	430	406	10856	21583	2016	202	56123

TABLE 53 - ALTERNATIVE #3 - APPARATUS MAINTENANCE AND REPLACEMENT REQUIRMENTS

(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. RELIABILITY		12												6	18
2. MAINTENANCE	2	4		264							11374		700	32	12376
3. REPLACEMENT	2			80										16	98
4. MAINT. RECORDS															0
5. MECHANIC TRNG.				8											8
TOTAL	4	16	0	352	0	0	0	0	0	0	11374	0	700	54	12500

TABLE 54 - ALTERNATIVE #3 - FACILITY REQUIREMENTS AND MAINTENANCE

(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. LOCATION PLAN	24	8		40				120						16	208
2. FACILITY DESIGN	8	24												4	36
3. MAINTENANCE				730								12194		30	12954
4. EVALUATE MAINT.	2			40										4	46
5. NEW MAINT. PLAN	12			8										4	24
6. MAINT. RECORDS															0
7. EFFICIENCY				12											12
TOTAL	46	32	0	830	0	0	0	120	0	0	0	12194	0	58	13280

TABLE 55 - ALTERNATIVE #3 - DISASTER PLANNING REQUIREMENTS
(personnel hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. MULTI-RISK PLAN	8				56									16	80
2. ANNUAL EXERCISE	4	4	8	8	40	4		12	12	12	12	8	12	8	144
3. MULTI-AGENCY				16	24			16			16	16		4	92
4. EOC OPERATIONS	4	16													20
5. EDUCATION					32									4	36
6. FIRE CONTROLS															0
TOTAL	16	20	8	24	152	4	0	28	12	12	28	24	12	32	372

TABLE 56 - ALTERNATIVE #3 - OTHER AGENCY ACTION PLAN REQUIREMENTS
(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
1. ALCO COMM.	8			24										6	38
2. BUILDING DEPT.	8					48		48						12	116
3. PLANNING DEPT.	2					8								2	12
4. COUNTY EMS	2				16									4	22
5. COUNTY HAZ MAT	16	40				16								8	80
6. PUBLIC WORKS	2					8								4	14
7. SHERIFFS DEPT.	4	16			8									6	34
8. PARAMEDIC CO.	16				24									24	64
9. SCHOOLS	16				32									8	56
10. WATER COS.	4					32								8	44
TOTAL	78	56	0	24	80	112	0	48	0	0	0	0	0	82	480

TABLE 57 - ALTERNATIVE #3 - TOTAL PERSONNEL REQUIREMENTS

(Personnel Hours)

PROGRAM	CHIEF	DEPUTY CHIEF	ASST. CHIEF-VOL	BATTALION CHIEF	TRAINING OFFICER	FIRE MARSHAL	DEPUTY FM	CAPTAIN (CAREER)	CAPTAIN (VOL)	LIEUT. (VOL)	ENGINEER	FRFGHTR	FRFGHTR (VOL)	CLERICAL	TOTAL
MANAGEMENT	1140	796	60	498	148	266	112	1452	44	56	288	432		251	5543
FIRE PREVENTION	230					814	3013	3790			3790	3790		1192	16619
SAFETY EDUCATION	22				536	20	1616	960			960	960		324	5398
FIRE SUPPRESSION	96	92	30	11973				64900	60	91	64900	64900	816	21	207879
FIRE INVESTIGATION	4					4	2350	861		62				322	3603
EMERGENCY MEDICAL	6	12		408	232			4244	80	120	4340	5130	1920	72	16564
HAZ MATS	66	64	36	134	24	36		616	48	72	600	792	648	74	3210
TRAINING	188	236	153	2156	2284	246	518	14849	430	406	10856	21583	2016	202	56123
APPARATUS	4	16		352							11374		700	54	12500
FACILITIES	46	32		830				120				12194		58	13280
DISASTER PLANNING	16	20	8	24	152	4		28	12	12	28	24	12	32	372
OTHER AGENCIES	78	56		24	80	112		48						82	480
TOTAL	1896	1324	287	16399	3456	1502	7609	91868	674	819	97136	109805	6112	2684	341571
HOURS AVAILABLE	1960	3920	287	15300	3920	1960	7840	84150	674	819	91800	137700	6376	3920	360626
SHORTAGE/SURPLUS	64	2596	0	-1099	464	458	231	-7718	0	0	-5336	27895	264	1236	19055

TABLE 58A - TOTAL PROGRAM COSTS FOR ALTERNATIVE #3A

<u>1991/92 Budget Costs</u>	
CVFPD	- \$7,065,698
ECFPD	- 6,338,150
CFP	- 1,381,391
OES	- 36,850
Contracts via Sheriff's Office	- 517,838
<u>Contracts via CAO Office</u>	<u>- 218,776</u>
Subtotal	\$15,558,703
<u>Alternative #3A Cost Increases:</u>	
Relocate ECFPD Stas. 1 & 3 (\$2,500,000)	500,000/yr.(1)
Crow/Norris Canyon station site (\$100,000)	20,000/yr.(1)
One additional training officer	61,000/yr.
One additional deputy fire marshal	61,000/yr.
New apparatus:	
- Replacement engine	50,000/yr.(1)
- Replacement squad	12,000/yr.(1)
Computer hardware and software (5 sta.)	30,500
Training facility (\$750,000)	150,000/yr.(1)
Fuel storage (4 stations)	60,000
Emergency generators (1 station)	25,000
Contract with City of Livermore	800,000/yr.
<u>Medical supplies (8 stations)</u>	<u>12,000</u>
Subtotal	\$1,781,500
<u>Total Cost of Alternative #3A</u>	
1991/92 Budget	\$15,588,703
Additional Costs	1,781,500
Modify CDF contract	-349,495(2)
Two firefighter positions	-111,290
Sale of CFP station	-350,000
<u>Fire chiefs positions</u>	<u>(see notes)</u>
Total	\$16,583,418

(1) Capital costs amortized over 5 year period.

(2) \$40,000 would remain in budget for rental of facility space.

TABLE 58B - TOTAL PROGRAM COSTS FOR ALTERNATIVE #3B

1991/92 Budget Costs

CVFPD	-	\$7,065,698
ECFPD	-	6,338,150
CFP	-	1,381,391
OES	-	36,850
Contracts via Sheriff's Office	-	517,838
<u>Contracts via CAO Office</u>	-	<u>218,776</u>

Subtotal \$15,558,703

Alternative #3B Cost Increases:

Three CDF captains @ CDF-Sunol station	\$175,045/yr.
Relocate ECFPD Stas. 1 & 3 (\$2,500,000)	500,000/yr.(1)
Crow/Norris Canyon station site (\$100,000)	20,000/yr.(1)
One additional training officer	61,000/yr.
One additional deputy fire marshal	61,000/yr.
New apparatus:	
- Replacement engine	50,000/yr.(1)
- Replacement squad	12,000/yr.(1)
Computer hardware and software (5 sta.)	30,500
Training facility (\$750,000)	150,000/yr.(1)
Fuel storage (4 stations)	60,000
Emergency generators (1 station)	25,000
Contract with City of Livermore	800,000/yr.
<u>Medical supplies (8 stations)</u>	<u>12,000</u>

Subtotal \$1,956,545

Total Cost of Alternative #3B

1991/92 Budget	\$15,558,703
Additional Costs	1,956,545
Three captains (CFP)	-222,500
Six firefighters (CFP)	-445,000
Two firefighter positions	-111,290
Sale of CFP station	-350,000
<u>Fire chiefs positions</u>	<u>(see notes)</u>

Total \$16,386,458

(1) Capital costs amortized over five year period.

TABLE 58C - TOTAL PROGRAM COSTS FOR ALTERNATIVE #3C

<u>1991/92 Budget Costs</u>	
CVFPD	- \$7,065,698
ECFPD	- 6,338,150
CFP	- 1,381,391
OES	- 36,850
Contracts via Sheriff's Office	- 517,838
<u>Contracts via CAO Office</u>	<u>- 218,776</u>

Subtotal \$15,558,703

Alternative #3C Cost Increases:

Three CDF captains @ CDF-Sunol station	\$175,045/yr.
Relocate ECFPD Stas. 1 & 3 (\$2,500,000)	500,000/yr. (1)
Crow/Norris Canyon station site (\$100,000)	20,000/yr. (1)
One additional training officer	61,000/yr.
One additional deputy fire marshal	61,000/yr.
New apparatus:	
- Replacement engine	50,000/yr. (1)
- Replacement squad	12,000/yr. (1)
Computer hardware and software (5 sta.)	30,500
Training facility (\$750,000)	150,000/yr. (1)
Fuel storage (4 stations)	60,000
Emergency generators (1 station)	25,000
Contract with City of Livermore	800,000/yr.
<u>Medical supplies (8 stations)</u>	<u>12,000</u>

Subtotal

\$1,956,545

Total Cost of Alternative #3C

1991/92 Budget	\$15,558,703
Additional Costs	1,956,545
Six firefighters (CFP)	-445,000
Two firefighter positions	-111,290
Sale of CFP station	-350,000
<u>Fire chiefs positions</u>	<u>(see notes)</u>

Total

\$16,608,958

(1) Capital costs will be amortized over five years.

TABLE 58D - TOTAL PROGRAM COSTS FOR ALTERNATIVE #3D

1991/92 Budget Costs

CVFPD	-	\$7,065,698
ECFPD	-	6,338,150
CFP	-	1,381,391
OES	-	36,850
Contracts via Sheriff's Office	-	517,838
<u>Contracts via CAO Office</u>	-	<u>218,776</u>

Subtotal \$15,558,703

Alternative #3C Cost Increases:

Three CDF captains @ CDF-Sunol station	\$175,045/yr.
Relocate ECFPD Stas. 1 & 3 (\$2,500,000)	500,000/yr.(1)
Crow/Norris Canyon station site (\$100,000)	20,000/yr.(1)
One additional training officer	61,000/yr.
One additional deputy fire marshal	61,000/yr.
New apparatus:	
- Replacement engine	50,000/yr.(1)
- Replacement squad	12,000/yr.(1)
Computer hardware and software (5 sta.)	30,500
Training facility (\$750,000)	150,000/yr.(1)
Fuel storage (4 stations)	60,000
Emergency generators (1 station)	25,000
Contract with City of Livermore	800,000/yr.
<u>Medical supplies (8 stations)</u>	<u>12,000</u>

Subtotal \$1,956,545

Total Cost of Alternative #3D

1991/92 Budget	\$15,558,703
Additional Costs	1,956,545
Two firefighter positions	-111,290
Sale of CFP station	-350,000
<u>Fire chiefs positions</u>	<u>(see notes)</u>

Total \$17,053,958

(1) Capital costs will be amortized over five years.

ALTERNATIVE #4

FORM A CONSOLIDATED DISTRICT INCLUDING ALL UNINCORPORATED AREAS EXCEPT THE COUNTY FIRE PATROL AND THE REDWOOD FIRE DISTRICT AREAS AND MAINTAIN THE COUNTY FIRE PATROL AS A SEPARATE COMMUNITY SERVICES DISTRICT UNDER THE ADMINISTRATION OF THE NEW CONSOLIDATED FIRE DISTRICT.

This alternative would consist of the formation of a consolidated fire protection district which would include Castro Valley Fire Protection District, the Eden Consolidated Fire Protection District, the O.E.S. volunteer fire department and all other unincorporated areas not currently served by the County Fire Patrol and the Redwood Fire Protection District. The new consolidated district would administer all contracts for fire protection in the unincorporated areas.

The area served by the County Fire Patrol would remain a separate Community Services District. However, the administration of the district would be transferred from the Sheriff to the new consolidated fire district. The reorganization of the County Fire Patrol would include:

- o The Board of Supervisors would transfer responsibility for administration of the County Fire Patrol from the Sheriff to the Consolidated Fire District.
- o Appointment of twenty-seven new positions:
 - o deputy chief
 - o administrative captain/training officer
 - o fire prevention/ fire safety education officer
 - o six fire captains
 - o six engineers
 - o twelve firefighters.
- o Relocation of the current fire station and the construction of two additional fire stations in order to improve the initial (five minute) response time/resources and the full alarm (ten minute) response time/resources.
- o Acquisition of new fire apparatus:
 - o Replace Engine 71
 - o Purchase two new engines for the new stations.

The existing fire station would be relocated to the East of the city of Livermore. One additional station would be constructed west of the Livermore city limits and another north of the city. These stations would be staffed with a minimum of three personnel per day.

The addition of these resources would enable the district to provide the support services and initial response resources needed to meet the established service level standards. This alternative would enable the County Fire Patrol to provide the service levels recommended in this study.

FIGURE 4 - FIRE DISTRICT ORGANIZATION ALTERNATIVE #4

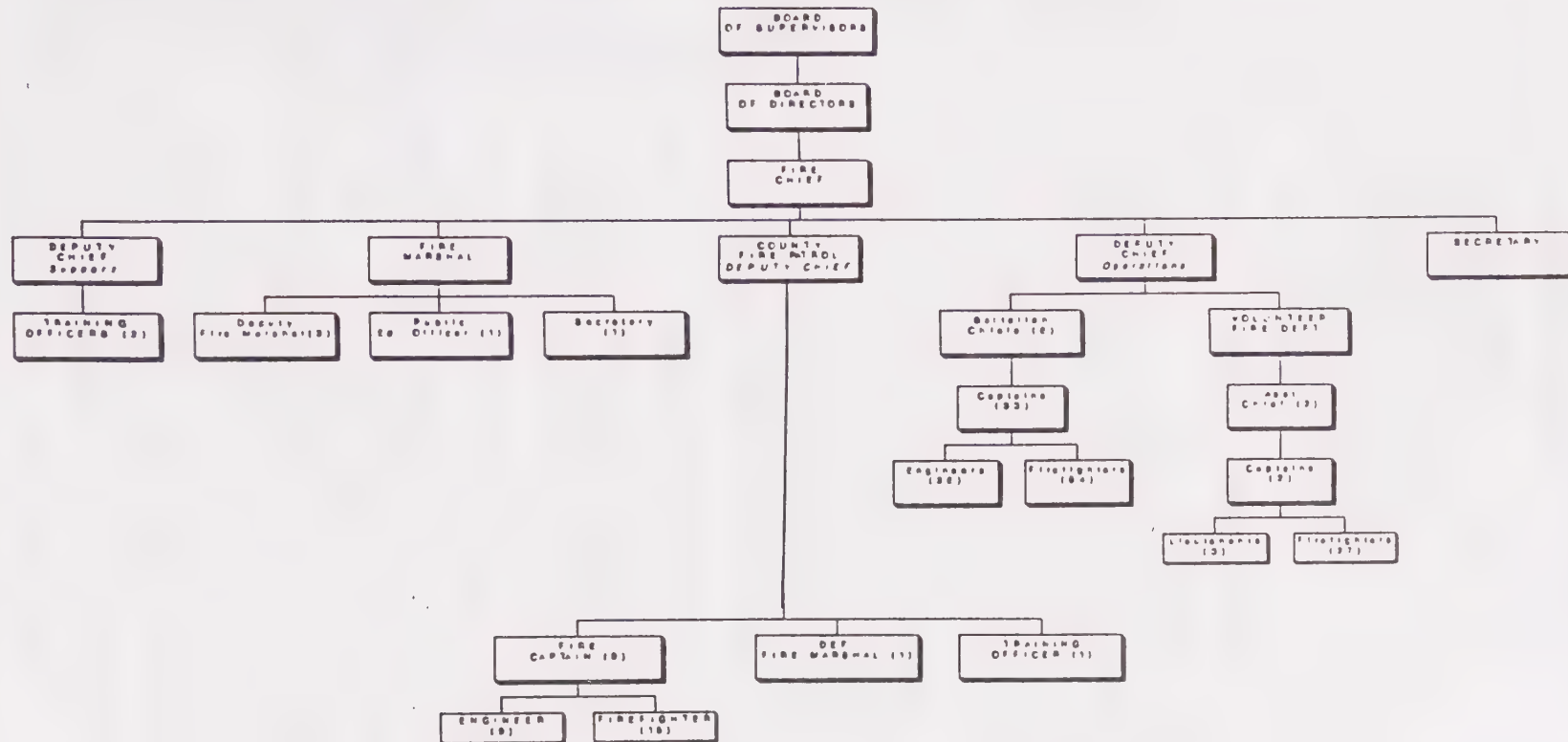


TABLE 58E - TOTAL PROGRAM COSTS FOR ALTERNATIVE #4

1991/92 Budget Costs

CVFPD	-	\$7,065,698
ECFPD	-	6,338,150
CFP	-	1,381,391
OES	-	36,850
Contracts via Sheriff's Office	-	517,838
<u>Contracts via CAO Office</u>	-	<u>218,776</u>

Subtotal \$15,558,703

Alternative #4 Cost Increases:

New Consolidated District:

Three CDF captains @ CDF-Sunol station	\$175,045/yr.
Relocate ECFPD Stas. 1 & 3 (\$2,500,000)	500,000/yr. (1)
Crow/Norris Canyon station site (\$100,000)	20,000/yr. (1)
One additional training officer	61,000/yr.
One additional deputy fire marshal	61,000/yr.
New apparatus:	
- Replacement engine	50,000/yr. (1)
- Replacement squad	12,000/yr. (1)
Computer hardware and software (5 sta.)	30,500
Training facility (\$750,000)	150,000/yr. (1)
Fuel storage (4 stations)	60,000
Emergency generators (1 station)	25,000
<u>Medical supplies (8 stations)</u>	<u>12,000</u>
Subtotal New Consolidated District	\$1,156,545

New County Fire Patrol District:

Fire Chief salary increase (deputy chief):	\$30,000/yr.
Administrative Captain/Training Officer:	61,000/yr.
Fire Prevention/Fire Safety Ed. Officer:	61,000/yr.
Six Fire Captains:	397,430/yr.
Six Engineers	256,824/yr.
Twelve Firefighters	513,648/yr.
Relocate existing fire station (\$1,250,000):	250,000/yr. (1)
Construct two new fire stations (\$2,500,000):	500,000/yr. (1)
Replace engine 71: (\$250,000):	50,000/yr. (1)
Purchase two new engines (\$500,000):	100,000/yr. (1)
Annual operating costs, 2 new stations:	100,000/yr.
Annual operating costs, 2 new engines:	28,000/yr.
Computer hardware and software:	8,000
Administrative services (1/2 clerical)	17,226/yr.
Administrative services (1/2 deputy chief)	40,098/yr.
<u>Emergency Medical Supplies:</u>	<u>4,500</u>

Subtotal for New CFP District \$2,417,730

(1) Capital costs will be amortized over five years.

Total Cost of Alternative #4

1991/92 Budget	\$15,558,703
Additional Costs	
- New Consolidated district:	1,156,545
- New CFP district:	2,417,730
Sale of CFP station:	-350,000
<u>Fire chiefs positions</u>	<u>(see notes)</u>
Total	\$18,782,978

TABLE 59 - SUMMARY OF PROPOSED ALTERNATIVE COSTS

SYSTEM	SALARY & BENEFITS	SERVICE & SUPPLIES	FIXED ASSET	TOTAL
CURRENT	\$11,283,195	\$2,864,114	\$1,328,130 (2)	\$15,588,700
CURRENT MODIFIED	\$11,701,350	\$5,197,700	\$994,300	\$17,892,350
ALT. #1	\$11,580,240	\$4,948,210	\$953,600	\$17,482,050
ALT. #2	\$10,980,240	\$5,503,091	\$868,600	\$16,484,200
ALT. #3A	\$10,693,905	\$5,042,015	\$847,500	\$16,583,420
ALT. #3B	\$10,201,450	\$5,337,510	\$847,500	\$16,386,460
ALT. #3C	\$10,423,950	\$5,337,510	\$847,500	\$16,608,960
ALT. #3D	\$10,868,950	\$5,337,510	\$847,500	\$17,053,958
ALT. #4	\$11,743,850	\$6,083,620	\$1,755,500	\$18,728,258

TABLE 60
ALTERNATIVE RESOURCE LEVELS FOR CONSOLIDATED FIRE DISTRICT
STATIONS, FIRST LINE APPARATUS AND PERSONNEL

TITLE	CURRENT SYSTEM	ALT. 1	ALT. 2	ALT. 3A	ALT. 3B	ALT. 3C	ALT. 3D	ALT. 4
STATIONS	9	10	9	8	8	8	8	11
ENGINE	13	15	13	12	12	12	13	15
TRUCK	1	1	1	1	1	1	1	1
SQUAD	3	3	3	2	2	2	2	3
PATROL	6	7	6	4	4	4	4	6
WATER TENDER	1	1	1	1	1	1	1	1
TOTAL	24	27	24	20	20	20	21	26
FIRE CHIEF	4	1	1	1	1	1	1	1
DEPUTY CHIEF	2	2	2	2	2	2	2	3.5
ASST. CHIEF (VOL)	1	2	2	2	2	2	2	2
BATTALION CHIEF	7.2	6.2	6.2	6	6.2	6.2	6.2	6.2
TRAINING OFFICER	1	2	2	2	2	3	2	3
FIRE MARSHAL	0	1	1	1	1	1	1	1
DEP. FIRE MARSHAL	3	4	4	6	6	7	6	7
CAPTAIN	33	36	33	30	30	30	33	39
CAPTAIN (VOL)	2	2	2	2	2	2	2	2
LIEUTENANT (VOL)	3	3	3	3	3	3	3	3
ENGINEER	33	39	36	33	33	33	36	39
FIREFGHTR	57	55	52	48	48	51	54	63
FIREFIGHTER (VOL)	27	48	27	27	27	27	27	27
CLERICAL	2.25	3.25	2.25	2	2.25	2.25	2.25	2.75
TOTAL	175.45	204.45	173.45	165	165.45	170.45	177.45	199.45

* May increase by two due to reclassification of fire chiefs.

The current system excludes the Fairview Fire District personnel;
however if their personnel were added, the total would be 204.45

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ALAMEDA COUNTY FIRE PROTECTION MASTER PLAN

TASK 5 RECOMMENDATIONS

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TASK 5
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INTRODUCTION

This task presents recommendations for the selection and implementation of the most efficient and effective methods of providing the recommended fire protection, EMS and Haz Mats service levels throughout the unincorporated areas of Alameda County. These recommendations are presented in the same order as the service level standards (goals and objectives) were presented in Task 3.

It is the intent of these recommendations that all the action plans listed in Task 4 will be implemented. Certain action plans are listed specifically in Task 5 in order to emphasize the importance of the action plan or to expand upon the intent or process related to a recommended program.

SUMMARY OF RECOMMENDATIONS

This summary of the recommendations of the plan is also found in Task 5:

FIRE PROTECTION SYSTEM MANAGEMENT

It is recommended that Alternative 3C be adopted and that the formation of a consolidated fire district be initiated within three months.

It is recommended that the service level standards identified in Task 3 be adopted by the Board of Supervisors as minimum service level standards for the unincorporated areas of the county. The appropriate standards should be used to revise the Safety Element of the County General Plan.

It is recommended that a policy be adopted by the county which specifies that the primary method of providing fire protection in rural areas is through "built-in" fire protection in structures and "self-help" safety programs. The allocation of fire district resources to these programs will be expanded.

It is recommended that the reorganization proposed in Alternative #3 include the reclassification of the current fire chiefs to deputy chief and that a competitive open exam be conducted to fill the fire chief's position. All of the current fire chiefs should be eligible to compete for this position. The eligibility of other persons to compete for the position will be determined by the county administrator.

It is recommended that the additional deputy chief positions created as a result of the reclassification of fire chiefs should not be refilled when the positions are vacated. These positions when filled should be used to enhance the implementation of the master plan programs at the management level.

It is recommended that a board of fire commissioners be formed for the consolidated fire district which consists of an equal number of CVFPD, ECFPD board members and representatives from the Eastern portions of the county. Members of the FFPD board of directors would also be included if FFPD chooses to participate in this reorganization.

It is recommended that the County Fire Patrol and the O.E.S. volunteer fire department be consolidated with the Eden Consolidated and Castro Valley fire protection districts.

It is recommended that the Fairview Fire Protection District (FFPD) consider participating in this reorganization. Although FFPD is not specifically included in Alternative #3 it is possible, and recommended, that the district participate in that reorganization.

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It is recommended that the unincorporated area north-west of highways 580 and 680 be annexed to the new fire district. The Palomares Canyon area between highway 580 and the Hayward city limit should also be annexed to the district. The Palomares Canyon area South of the Hayward city limit should be served through an automatic aid agreement between CDF and the district.

It is recommended that the computerized management information system currently being implemented by CVFPD be expanded to all stations in the consolidated fire district.

It is recommended that the periodic reporting system which is to be developed in Task 1.5 specifically include reporting to the county administrator and the board of supervisors regarding progress in the implementation of the provisions of this plan.

It is recommended that the workload assignments be adjusted between captains, engineers and firefighters to reduce workloads of captains and engineers by better utilization of available hours within the firefighter positions.

It is recommended that volunteer companies be maintained and fully supported by the fire district. The district will provide training, equipment maintenance, and other support services which will enable the volunteers to concentrate upon skill maintenance and emergency responses. The volunteer companies will provide additional resources needed to cope with major emergency incidents. The program will serve as an entry level development program for firefighters.

It is recommended that the feasibility of forming a new volunteer company in the Sunol area be evaluated in order to provide added fire control resources to support the CDF operations.

It is recommended that the contract with CDF be modified to maintain three personnel on duty and to assure that fire prevention, safety education and other activities assigned to fire companies will be performed by CDF at the same level as the county fire district companies.

FIRE PREVENTION

It is recommended that building code amendments be adopted which increase the requirements for built-in fire protection (residential sprinklers and fire retardant roofing). These should be given a high priority, especially in the rural areas.

It is recommended that "fire-safe" standards be adopted to limit the risk from brush fires in the wildland-urban interface areas. These "fire-safe" standards should be equal to or exceed the current state responsibility area requirements found in the Public Resources Code Section 4290.

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It is recommended that the newly formed fire district assume the responsibility for all fire prevention functions in the unincorporated areas of the county, including those areas protected under contracts.

It is recommended that the district fire marshal also be designated as the county fire marshal with full authority to enforce local and state mandated regulations.

It is recommended that fire prevention fee schedules be implemented to offset the costs of fire code enforcement, including the adoption of a citation system.

It is recommended that the fire district provide one deputy fire marshal on a scheduled basis to conduct plan reviews in conjunction with the county planning and building departments at their facilities according to the proposed agreement presented by the county building official.

FIRE SAFETY EDUCATION

It is recommended that a comprehensive safety education program be developed and delivered to residents and businesses throughout the unincorporated areas. This program should concentrate upon the rural areas to encourage "self-help" programs such as the retrofitting of residences with automatic fire sprinklers and smoke detectors. This program should receive a major commitment of suppression division resources.

It is recommended that the delivery of fire safety, EMS and Haz Mat control information to homeowners as part of the "self-help" program should be given a high priority.

FIRE SUPPRESSION

It is recommended that the response standards for first arriving units and full alarm assignments be adopted, as recommended in Task 3. Incident response data for activities throughout the unincorporated areas of the county should be evaluated by the county fire chief at least quarterly to assure that standards are being met.

It is recommended that automatic aid agreements be maintained by all fire protection agencies in the county to maximize the effectiveness and efficiency of the emergency response services. The closet unit should respond to all emergency incidents regardless of jurisdiction.

It is recommended that an automatic aid agreement be developed with the San Ramon Valley Fire Protection District for improved service in Crow Canyon and Norris Canyon areas.

It is recommended that response to emergency incidents (fires, EMS or Haz Mat control) in the North-eastern portions of the county be provided through a contract with the city of Livermore.

It is recommended that the current contracts for incident response by CDF, the cities of Pleasanton and Hayward, the Dougherty Fire Authority, and the Redwood Regional Parks district be continued. However, the fire chief of the county fire district should review these contracts annually to assure that program benefits and service levels are maintained. The contract with Pleasanton should be amended to require that fire prevention, public education and fire investigation services are provided by the city of Pleasanton in the contract areas.

EMERGENCY MEDICAL SERVICES

It is recommended that the fire district initially continue to participate in the county EMS program at the EMT-1D level.

It is recommended that the fire district be provided with periodic reports by the county EMS agency which identify the service levels provided to each area served by the district.

It is recommended that specific procedures be established and strictly maintained which:

- o Provide an infectious disease monitoring system to advise all firefighters of exposure to infectious diseases as soon as that information is available, and
- o A decontamination procedure for victims of Haz Mat exposures to be implemented by health care providers and facilities treating the victims.

HAZARDOUS MATERIALS

It is recommended that the fire district assume the responsibility for hazardous materials code enforcement regarding all storage and reporting of hazardous materials as required by local, state and federal regulations. This code enforcement program would be integrated with the fire code enforcement program.

It is recommended that fees for Haz Mat code enforcement be provided to the district to fully offset the cost of this code enforcement. This funding may be provided by a new fee system or the transfer of existing fees.

It is recommended that the fire district participate in the two joint powers Haz Mat response team programs being developed within Southern

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Zone and the Twin Valley areas of the county, within nine months. Funding and resources currently assigned to the county health department for response to emergency incidents should be transferred to the fire district or the joint powers response team programs.

TRAINING

It is recommended that one additional training officer be provided on a forty-hour week schedule to meet the increasing training demands.

It is recommended that a training center be constructed in year five.

APPARATUS MAINTENANCE AND REPLACEMENT

It is recommended that a scheduled apparatus replacement program be implemented which includes: replacement standards, a data system to monitor replacement criteria and a funding mechanism, based upon five year lease-purchase agreements. (See Table 61 for recommended 10 year capital improvement expenditures.)

It is recommended that one engine and patrol unit be replaced in the 1991/92 as the first step in a scheduled replacement program.

It is recommended that the two engines operated by CFP be placed out of service and one of the reserve engines be placed in service at the Livermore facility until the new Crow Canyon station and new engine are available.

It is recommended that a policy be established to maintain one reserve engine for each three engines in service. A reserve truck should be provided through a regional agreement between fire protection agencies. Reserve units will not be maintained for squad or patrol apparatus.

TABLE 61 - RECOMMENDED FIXED ASSET EXPENDITURES

1991/92 to 2000/01

YEAR	FIRE STATION (1)	FIRE STATIONS (2)	TRAINING CENTER (3)	ENGINES (4)	SQUADS (5)	PATROLS (5)	TOTAL
1991/92				50,000		\$12,000	\$62,000
1992/93	\$70,000			100,000	\$12,000	12,000	194,000
1993/94	70,000	\$500,000		150,000	12,000	12,000	944,000
1994/95	70,000	500,000		250,000	24,000	12,000	1,056,000
1995/96	70,000	500,000		350,000	24,000	24,000	1,168,000
1996/97	70,000	500,000	150,000	400,000	24,000	12,000	1,356,000
1997/98		500,000	150,000	450,000	12,000	24,000	1,336,000
1998/99			150,000	500,000	12,000	24,000	686,000
1999/00			150,000	500,000		24,000	674,000
2000/01			150,000	500,000		12,000	662,000

(1) Crow Canyon station site:

Fire station funded through the sale of the CFP station in Livermore.

(2) ECFPD

Fire Stations #1 & #3 - \$2,500,000 w/ 5 yr. financing @ \$500,000/yr

(3) Training center - \$750,000 w/ 5 yr. financing

(4) Estimated cost of engines - \$250,000 each, w/ 5 yr. financing

(5) Estimated cost of squads and patrols - \$60,000, w/ 5 yr. financing

It is recommended that a detailed analysis of the services and costs of apparatus maintenance provided by the county maintenance facility and the private contractor currently used by some districts be conducted. The program which provides the highest level of service should be selected.

It is recommended that the engine assigned to the CDF Sunol station be outfitted and maintained with a standard complement of fire fighting and rescue equipment, by the county as part of the contract with CDF.

FACILITIES

It is recommended that property for a new fire station be acquired in the Crow Canyon area. Two alternative station configurations should be considered.

The first alternative station would be a permanent station with facilities adequate to house two engine companies and one reserve apparatus. The facility would also include a meeting/training room to meet needs of district and to serve as a community contact and disaster control facility. The site for this station should be a minimum of one acre. This facility could be co-located with a training center if property is available and the use is compatible with the area.

The second alternative station would be a single family dwelling with an expanded garage which is capable of housing one engine and a squad or patrol unit. This facility would be provided with an emergency generator and small fuel storage unit but would not have the capacity to serve as a community disaster control facility. This station would be considered to be a temporary facility. The site for this facility should be a minimum of one-half acre.

It is recommended that two ECFPD stations (#1 and #3) be relocated at new sites in the general vicinity of the current stations. The estimated cost of land and construction is \$2,500,000.

It is recommended that the current CFP operations in Livermore be discontinued and the facility be sold. The resulting funds would be used for the purchase of a station site in Crow Canyon or to offset the costs of a training center facility, once a contractual agreement for emergency responses in the north-eastern areas of the county has been implemented.

It is recommended that the practice of fire station maintenance and janitorial services by fire department personnel be evaluated. It may be more cost effective to provide contract janitorial services to provide additional time for personnel to accomplish fire protection, EMS or Haz Mat programs.

It is recommended that fire stations be equipped to operate independently during disaster recovery periods. Since fire stations will become neighborhood contact points for citizens in the unincorporated areas of the county during disasters, the district should be prepared to meet these needs. This will require upgrading emergency fuel, electrical "standby" power and emergency medical supplies at each station.

Fire stations should be prepared to provide services and/or direct citizens to the appropriate agency or location in non-emergency and disaster operations. Safety education programs for citizens which develop "self-help" capabilities are an important part of this process.

It is recommended that the district develop a long range fire station construction and replacement plan for submittal to the board of supervisors within 12 months to meet the perceived need for fire station expansions, remodeling and/or relocations.

DISASTER PLANNING

It is recommended that the district maintain a multi-risk disaster plan in conjunction with other city and county agencies. Periodic scheduled multiple agency exercises should be conducted to maintain the plan.

It is recommended that the district place emphasis upon "self-help" training for county residents and businesses to assist them in preparing to cope with the results of a disaster. Primary emphasis should be placed upon the fire and EMS implications of earthquakes and wildland fires.

OTHER AGENCY COORDINATION

It is recommended that the fire district establish and maintain coordination with those public and private agencies which impact the abilities of the district to provide services. The results of these efforts should be written operational procedures which are regularly reviewed and validated.

ALAMEDA COUNTY
FIRE PROTECTION MASTER PLAN

VOLUME II
DATA COLLECTION AND ANALYSIS

JANUARY, 1992

FIRE LOSS MANAGEMENT SYSTEMS

ALAMEDA COUNTY FIRE PROTECTION MASTER PLAN

VOLUME II DATA COLLECTION AND ANALYSIS JANUARY, 1992

**FIRE LOSS MANAGEMENT SYSTEMS
1667 SPRINGER ROAD; MOUNTAIN VIEW, CA 94040
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SUMMARY OF FINDINGS

SUMMARY OF FINDINGS

This section summarizes the findings which are described in detail in the remainder of this report.

Organization

The unincorporated areas of the county receive fire protection services from twelve agencies.

The three fire districts in the central portion of the county operate under the direction of three boards of directors and three fire chiefs. Two of the boards of directors are appointed by the board of supervisors (CVFPD and ECFPD) and one board is elected by the residents of the fire district (FFPD).

Seven agencies operate under the direction of the County Sheriff's Department or through contracts administered by the Sheriff's Department. These programs generally lack management control, coordination and resources. In some cases, service areas have extensive overlaps while other areas receive limited service. In general, effective fire protection planning and management is not provided.

The Santa Rita jail was constructed with a high level of built-in fire protection. A thorough maintenance and testing program for the fire protection systems has been implemented. The fire station constructed as part of the new facility and the fire apparatus which had been provided for the previous jail facility are no longer needed.

The O.E.S. Fire Department operates under the Sheriff's Department. These volunteer personnel provide support services to fire departments at major incidents and are intended to provide fire control/rescue services in disasters. The current effectiveness and utilization of the department are limited due to the absence of adequate training and coordination with fire departments managed by career personnel.

The operation and management of the County Fire Patrol is limited by inadequate resources, an extensive geographical area and responsibility for fire prevention functions throughout the unincorporated area. The County Fire Patrol Chief devotes most of his time to fire prevention.

The California Department of Forestry is responsible for wildland fire protection the unincorporated portions of the county which are designated as State Responsibility Areas (SRA's). The county is responsible for structural fire protection, first responder emergency medical services and first responder hazardous materials services in these areas. The county contracts with CDF for these services in those areas not protected by the three fire districts or the County Fire Patrol.

The contracts for fire protection services with the cities of Hayward and Pleasanton appear to be appropriate since the areas served are

expected to annex to those cities in the future. Fire prevention services are not required as part of these contracts, which is one of the reasons the County Fire Patrol workload exceeds available resources.

The Dougherty Fire Authority provides fire suppression services to the county jail, and other county properties on the North side of Highway 580. The contract for these services was approved on March 5, 1991.

All non-management career personnel with CVFPD, ECFPD, FFPD and CFP are members of one employee group, which is IAFF Local 1428. A current MOU with similar benefits is in effect until January of 1992.

Service level standards have not been established for fire protection, EMS and HAZ MAT controls. Although some operational guidelines have been developed by the three fire districts, only one of the districts has prepared a long range plan. Program management and evaluation of service levels for those programs assigned to the sheriff's department consist of budget preparation and an annual activity report.

Existing management information systems, with few exceptions, are manual systems which do not produce the data and analysis needed to adequately plan, manage and evaluate fire protection, EMS and HAZ MATS operations. Fairview has implemented some computerized programs. Castro Valley is currently developing an automated data system.

Current Projected Areas and Population Protected

Currently 694.5 square miles of unincorporated area and 96,512 persons receive fire protection from the agencies described in this report. It is estimated that the area to be protected will decrease to 648.5 square miles by the year 2000 and the population will increase to approximately 144,000.

	1990		2000	
	Area Sq.Mi.	Population	Area	Population
County Fire Patrol	350.0	6,862	300	6,300
Eden Consolidated	7.5	65,000	7.5	70,000
Castro Valley	13.5	49,300	23.5	52,300
Fairview	4.0	10,000	5.0	15,000
CDF	300.0	unk	290.0	unk
Redwood FPD	19.5	350	19.5	370
Total	694.5	131,512	645.5	143,970

Significant increases in population are expected to occur within Fairview, Castro Valley, Eden Consolidated and the Sunol areas.

Although development is projected in the eastern portion of the county, it is anticipated that significant developments in unincorporated areas will be annexed to the Cities of Livermore or Pleasanton. Therefore, the land area and population within the Fire Patrol's area are projected to decrease. A projected 10-square mile land area increase for the Castro Valley Fire Protection District reflects the annexation to the district of the land to the east between the current district boundaries and the Contra Costa County line. New development in this area is projected to be scattered single family dwellings. The Fairview district growth reflects the proposed Rancho Palomares development.

Personnel

Two hundred and seventy career, paid-on-call and volunteer personnel are employed to staff the fire protection agencies serving the unincorporated areas.

	CVFPD	ECFPD	FFPD	CFP	CDF/ SUNOL	O.E.S	EBRPD	SANTA RITA	TOTAL
Chief:									
Career:	1	1	1	1			1		5
POC/Vol.:						1			1
A/C or D/C									
Career:	1	1							2
POC/Vol.						1			1
Batt. Chief	3	4							7
Fire Marshal							1	1	2
Deputy F.M.II	1								1
Deputy F.M.I	1	1							2
Trng Officer:									
Career:	1								1
POC/Vol.:						1			1
Captain:									
Career:	15	12	3	3			1		34
POC/Vol.:						2			2
Engineer	15	15			3				33
Firefighter:									
Career:	2	21	7	9	3		5		69
POC/Vol.:			21			27	58		106
Clerical	1	1	0.5		0.25		1		3.75
TOTAL	63	56	32.5	13	6.25	32	67	1	270.75

Veterans Administration Hospital

A Veteran's Administration hospital is located in the unincorporated area of the County, South of the City of Livermore. One engine is staffed by hospital firefighters.

ALAMEDA COUNTY FIRE PROTECTION EXPENDITURES - 1986/87 TO 1990/91

AGENCY	1986/87	1987/88	1988/89	1989/90	1990/91
CVFPD	\$3,456,122	\$4,127,661	\$4,511,904	\$5,162,717	\$5,519,977
ECFPD	3,313,293	3,998,557	3,733,274	5,051,354	5,372,366
FFPD	538,836	576,660	613,573	768,434	877,400
CFP	1,259,842	1,114,223	1,335,336	1,273,375	1,398,138
O.E.S.	unk	unk	unk	unk	33,500
CDF*	(1)	(1)	(1)	330,000	377,495
HAYWARD*	25,000	25,000	25,000	25,000	25,000
ECFPD*	50,000	50,000	50,000	50,000	50,000
EBRPD*	12,000	12,000	12,000	12,000	16,346
PLEASANTON*	77,000	77,000	77,000	77,000	77,000
DOUGHERTY*	55,000	55,000	55,000	55,000	55,200 (a)
TOTAL	\$8,553,093	\$10,036,101	\$10,413,087	\$12,804,880	\$13,802,422

* Contracts administered by Alameda County Sheriff's Department

- (1) CDF contract included in County Fire Patrol expenditures for 1986/87 to 1988/89
 (2) The Dougherty Fire Authority contract provides 22 responses to the Santa Rita Jail for \$55,200 per year. Additional calls and any calls in the other county area North of Hwy 580 will be billed at a rate

Revenues and Expenditures

The fire protection program expenditures which are funded through the county have increased by 59.9% from 1986/87 to 1990/91.

The revenue sources for fire protection services in the unincorporated areas are provided primarily by property taxes and special district augmentation funds (SDAF). For the past five years an average of 73% of the funding for fire protection has been provided by SDAF, 26% from property taxes and 1% from other revenues such as state mandated reimbursements and workers compensation insurance refunds.

New construction development fees to fund capital improvements have not been established. However, through a development agreement, a new fire station is to be constructed and a new engine is to be purchased in the Fairview Fire Protection District as part of the Rancho Palomares project.

Benefit assessment districts to fund the operational requirements of the fire protection agencies have not been developed.

Fire prevention and hazardous materials permit fees which are provided for in the Uniform Fire Code have not been implemented. Service fees for fire prevention services, including plan check fees, have not been developed. A system of citations and fines for non-compliance with fire code requirements have not been implemented. A weed abatement cost recovery program is in effect in the Eden Consolidated district. However, this program does not provide sufficient revenue to make the program self funding.

ALAMEDA COUNTY FIRE PROTECTION REVENUE SOURCES 1986/87 TO 1990/91

PROPERTY TAX	1986/87	1987/88	1988/89	1989/90	1990/91
CVFPD	\$887,962	\$1,009,840	\$1,144,631	\$1,241,333	\$1,345,518
ECFPD	832,679	912,422	1,048,522	1,065,708	1,175,523
FFPD	335,496	356,375	425,317	490,693	614,200
CFP*	231,275	279,714	292,135	404,116	309,168
PROP. TAX TOTAL	\$2,287,412	\$2,558,835	\$2,910,635	\$3,201,850	\$3,444,409

SDAF

CVFPD	\$3,032,047	\$2,760,059	\$3,937,116	\$4,197,024	\$3,432,780
ECFPD	2,706,407	2,744,040	3,432,825	3,029,616	3,468,173
FFPD	204,313	204,313	204,313	204,313	204,313
CFP*	1,023,356	880,694	1,174,729	1,023,465	\$1,074,638
SDAF TOTAL	\$6,966,123	\$6,589,106	\$8,748,983	\$8,454,418	\$8,179,904

TOTAL REVENUES

PROPERTY TAX	\$2,287,412	\$2,558,835	\$2,910,635	\$3,201,850	\$3,444,409
SDAF	6,966,123	6,589,106	8,748,983	8,454,418	8,179,904
OTHER	145,064	199,450	150,493	260,523	111,710
TOTAL	\$9,398,599	\$9,347,391	\$11,810,111	\$11,916,791	\$11,736,023

* Includes revenues for all contracts administered by Sheriff's Dept.

Fire Code

Alameda County has adopted the 1985 Uniform Fire Code (UFC) (Appendix A) which includes automatic fire sprinkler requirements which exceed the Uniform Building Code minimums (Appendix B) for commercial, industrial, and multifamily occupancies. This code amendment does not require automatic fire sprinklers in single family dwellings. Some districts are requiring residential sprinklers in new single family dwellings in areas where fire department response is deficient.

The county has not adopted the most current edition of the fire code (1988). The Fairview Fire Protection District has adopted the 1988 UFC.

Guidelines have been prepared as supplements to the 1985 UFC. These guidelines relate to residential sprinkler requirements (Appendix C), fire protection requirements for new developments (Appendix D), fire protection water supply requirements (Appendix E), fire safety requirements during construction (Appendix F), and wildland interface fire protection requirements (Appendix G). However, these requirements have not been adopted as ordinances and are therefore implemented by each agency as development requirements for individual projects. As a result these requirements are not being uniformly enforced.

Fire Prevention

Fire prevention programs have been established by the three fire districts, the County Fire Patrol (CFP) and the Santa Rita Jail. The contracts for fire protection administered by the Sheriff's department do not require that fire prevention services be provided. The CFP has been assigned the responsibility for all fire prevention activities in the unincorporated areas which are not within fire districts.

The Sheriff's department has implemented an effective fire prevention program at the Santa Rita jail. The testing and maintenance of fire protection equipment and systems are emphasized in this program.

A new construction site plan review program has been developed which provides the opportunity for the fire districts and the CFP to conduct reviews of all proposed projects. Most districts expressed a need to improve the procedures and working relationship between the county planning/building departments, and the fire districts.

The county building department has established a procedure for the review of new construction building plans by fire protection agencies. The fire agencies are notified when plans are available for review at the building department offices in Hayward. The requirements of the fire agencies are included in the plan review analysis. Compliance with fire protection agency requirements is a prerequisite for the issuance of building permits and certificates of occupancy. Some fire agencies do not consistently participate in this process and this has resulted in cases of non-compliance and conflict.

Neither fire districts nor the CFP have established a program to provide personnel to the building department on a predetermined schedule to conduct plan reviews. The building official has offered to provide office space for fire agency personnel in order to establish an improved plan review system.

Fire Code maintenance inspections are not regularly or uniformly performed by most fire agencies. The fire code is intended to limit fire risks within existing structures by controlling contents which constitute a fire risk and by maintaining the fire and life safety features which are built into structures (i.e.: exits, fire control equipment and systems, fire walls, etc.). Periodic inspections should be scheduled for all occupancies to assure that the integrity of fire and life safety systems required in the building and fire codes is maintained. It is generally accepted that all structures should be inspected at least annually and certain high hazard occupancies more frequently. The inspection of health care, public assembly and school occupancies are mandated by the state Health and Safety code. Consistent standards of fire and life safety code enforcement are not maintained throughout the unincorporated areas of the county.

The Fairview Fire Protection District (FFPD) has established a program of periodic reinspection of existing occupancies and is performing the inspections on an annual or more frequent schedule.

The Eden Consolidated Fire Protection District (ECFPD) has established periodic inspection criteria for all occupancies except multi-family. One deputy fire marshals and the engine companies have been assigned to inspections. Periodic inspections are conducted at intervals of 18 months or longer. A new deputy fire marshal will be assigned to improve the efficiency and effectiveness of the company inspection program.

The Castro Valley Fire Protection District (CVFPD) does not regularly inspect multi-family, commercial or industrial occupancies. The district has established a desired reinspection frequency but a program has not been implemented. The fire prevention bureau concentrates upon new construction plan reviews, inspection of health care facilities and weed abatement. The majority of one deputy fire marshal's time is devoted to weed abatement. Code enforcement inspections are not conducted by the suppression division.

The CFP is responsible for all fire prevention activities in the unincorporated areas, with the exception of the three fire districts. The fire chief devotes most of his time to new construction code enforcement. Periodic code maintenance inspections are not scheduled. The engine company personnel devote almost all of their fire prevention activities to weed abatement.

Programs which assure that the required testing is conducted to maintain the reliability of fire protections systems such as smoke detection and automatic fire extinguishing systems have not been developed.

The California State Fire Marshal's Office conducts inspections of the Hospitals and certain other health care facilities in the unincorporated areas of the county.

Fire Prevention Programs

The fire prevention programs conducted by the county fire agencies are:

FUNCTION	CVFPD	ECFPD	FFPD	CFP
New Construction Plan Review	yes	yes	yes	yes
Periodic Inspection Frequency:				
Public Assembly	n/a	18 mo.	3/yr.	n/a
Multi-family Dwellings	n/a	18 mo.	3/yr.	n/a
Commercial	n/a	18 mo.	1/yr.	n/a
Industrial	n/a	18 mo.	n/a	n/a
Health Care	CSFM	1/yr.	3/yr.	CSFM
Schools	1/yr.	1/yr.	1/yr.	1/yr.
Weed Abatement:	yes	yes	yes	yes
Citation Program:	no	no	no	no
Permits and Fees:	no	no	no	no
Company Inspection Program	no	yes	yes	no
Formal Company Insp. Training	no	no	yes	no

Building Code - Fire Retardant Roofing Requirements

Class A or B fire retardant roofing is required in Fire Zone 4 for all occupancies except single family dwellings and accessory buildings, which may use special purpose roofing. Combustible roofing is allowed in all other areas of the county for single family residences and accessory buildings.

Public Fire Safety Education Program

A comprehensive fire safety education program has not been developed to meet the needs of the unincorporated areas. A school fire safety education program has been developed by the FFPD. Shift Captains at CVFPD and ECFPD have been assigned to develop fire safety education programs. The ECFPD PIO fire captain presents fire safety programs to all schools each year. Some educational events are conducted but broad range, long term programs have not been developed. CDF conducts fire safety education as part of the Public Resource Code inspections conducted in the spring related to wildland fire control. The CFP is a member of the Twin Valley Fire Chiefs Public Education Committee. The fire chief serves as the CFP representative to the committee.

Hazardous Materials

Fire protection agencies are required by state legislation (AB2185/87) and federal statutes (29 CFR) to provide and maintain training of all fire service personnel who may respond to Haz Mat incidents. All fire protection agencies except two have met the Haz Mat training and certification requirements. The minimum training for firefighters includes an initial 24 hour "First Responder - Operations" training course and an annual 8 hour per year skill maintenance program.

Required Training	CDF	CFP	CVFPD	EBRPD	ECFPD	FFPD	O.E.S.
	(% of personnel trained)						

24 hrs. "Operations"	100%	0	100%	100%	100%	100%	0
8 hr. annual skill	yes	no	yes	yes	yes	yes	no

The county Environmental Health Department is the responsible agency for Haz Mats controls within the county as defined in state regulations (AB2185/87) and federal regulations (29CFR). These regulations not only specify training that fire departments must maintain but they also require that fire departments be notified of hazardous materials use or storage in each jurisdiction. This data must be readily available for use in incident management. This information has not been provided in the past. However, the Haz Mat Division of the County Health Department is currently distributing computer hardware and software to fire agencies through which the required notification can be provided.

Haz Mat technical support is not readily available to the fire agencies. The County Health Department operates a Haz Mat response vehicle. However, the unit is not staffed with adequate trained personnel. The extended response times of the unit to many areas of the county further limit its effectiveness. Certain municipal departments in the county are organizing a Haz Mat response program to meet the needs of the cities. None of the fire agencies which protect unincorporated areas are participants in this program. This Haz Mat unit may be available to fire departments within the county. However, it is anticipated that a service fees will be charged by the agency delivering the service.

The East Bay Regional Park District (EBRPD) is currently training personnel as Haz Mat technicians and is in the process of acquiring a Haz Mat van. This unit may be available to the county fire departments through a program yet to be developed.

Periodic inspections of occupancies which use or store Haz Mats is needed to assure that safety requirements are maintained. The county Haz Mat division has the responsibility for these inspections but does not have sufficient personnel to perform these inspections on a frequency required to maintain compliance.

Emergency Medical Services

All county fire agencies except O.E.S. and RFPD provide first responder services at the EMT-I level. RFPD personnel are trained to EMS First Responder level. The O.E.S. fire department does not provide EMS services. All agencies except O.E.S. provide early defibrillation services or are currently receiving the needed training. It is anticipated that all agencies except O.E.S. will implement this service within the next six months. The county EMS Division provides the necessary defibrillation equipment. The base hospital which serves each district is providing the required training.

Response time standards for the advanced life support (ALS) ambulance have been established. In the metropolitan areas the standard maximum response time is 8 minutes for 90 percent of the incidents. Other remote areas of the county are designated as 14 or 25 minute response zones. Monthly reports of response time data are reviewed by the county EMS department to verify that standards are being met. Penalties are charged against the ALS provider when standards are not met.

Response time standards for first responder EMS services by fire departments have not been developed or adopted by fire protection agencies or the county. There is a general understanding that a 5 minute response time is the guideline for fire departments in the metropolitan areas. However, guidelines for rural areas have not been developed. The response times of the fire departments are not monitored or reported by the county EMS program.

Emergency Medical Services accounts for 60 percent of all fire department incidents and 72 percent of all emergency incidents.

EMS Percentage of Incident Responses

Agency	Level of Training	All Incidents	Emergency Incidents
CDF	First Responder	42%	68%
CVFPD	EMT-ID	69%	75%
CFP	EMT-ID	33%	48%
ECFPD	EMT-ID	62%	67%
FFPD	EMT-ID	64%	81%
RFPD	First Responder	57%	62%
Average		60%	72%

The fire protection agencies continue to express concern regarding the fire fighter commitment to patient transportation. Although a fee system has been established to fund the cost of personnel recall to cover positions vacated by patient transportation specific programs to fund needed replacements and records to document needed program adjustments has not been implemented.

Incident Activities

The fire protection agencies serving the unincorporated county areas have responded to approximately 35,800 incidents over the past five years. Sixty percent of these incidents have been emergency medical emergency service calls, EMS incidents are 72 percent of the total. Vehicle accidents account for an additional 15 percent of the total emergency incidents. The number of EMS calls have increased by 40 percent during the period of 1985/86 to 1989/90.

Structure fires account for 3 percent of the total incidents and 3.6 percent of emergency incidents. The rate of occurrence of structure fires has remained relatively constant over the past five years with an average of 216 per year. The frequency of grass and brush fires have remained constant over during this period with an average of 180 per year.

It is estimated that EMS and vehicle accident frequencies will continue to rise at a rate equal to the population increase. Structure fires are expected to remain at the current level due to increased use of smoke detectors, fire retardant roofing and automatic sprinklers in dwellings and the increased use of automatic sprinkler systems in multi-family, commercial and industrial occupancies. Grass and brush fires are expected to remain constant due to continued development of vacant land and weed abatement programs.

Hazardous materials incidents have occurred at a rate of 314 per year over the past five years. This activity is expected to increase as public awareness of hazardous materials and environmental impacts increase.

Incident Response Standards

Standards have not been developed which specify the resources required to control emergency incidents and the time frames within which the resources should arrive at incidents. Data systems have not been developed which enable the fire departments to analyze service levels.

Procedures for the staffing of apparatus and the number of apparatus dispatched to incidents have been established. These staffing levels and apparatus responses vary between agencies. These procedures are not based upon the documented workload requirements of occupancies or incidents.

APPARATUS AND PERSONNEL RESPONSES TO INCIDENTS

AGENCY	STRUCTURE FIRE		EMERGENCY MED.		GRASS	FIRES		HAZ	MATS
	App.	Persons	App.	Persons		App.	Persons		
CDF	1	2	1	2	1	2	1	2	
CFP	3	3	3	3	3	3	3	3	
CVFPD	4	10	1	3	3	9	2	4	
ECFPD	4	10	1	3	2	9	1	4	
FFPD	4	10	1	6	2	10	1	6	
EBRPD	3	15	1	3	3	15	1	3	
O.E.S.	unk	unk	unk	unk	unk	unk	unk	unk	unk

Response times to incidents have been analyzed by all of the agencies. FFPD district records indicate that the response time of the first unit averages three to four minutes. The average response time of full alarm assignments is 11 minutes. Other agencies do not maintain response time data. However, CVFPD and ECFPD have conducted time studies which indicate that most of the areas within the CVFPD and ECFPD can be reached by the first engine within five minutes. The exception is in CVFPD in the canyon areas to the north-east of the district where response times range from 6.5 to 12.5 minutes.

The response studies also indicate that full alarm assignments can be provided within about 10 minutes in CVFPD and ECFPD. This is due in part to the automatic aid program which has been developed between these two agencies. This is a very effective program and the only automatic aid agreement in existence between county agencies.

Response times for CFP and CDF vary widely due to the size of the districts they serve. CFP has estimated that response times vary from 6 minutes to 53 minutes. The same range of response times can be estimated for CDF. The extended response times generally exist in areas with minimal development. However, long response times do occur in areas with substantial development such as the canyon areas between the CVFPD and the Contra Costa County line which are protected by CDF from the Sunol station. Residents in these areas have expressed concerns about these extended response times.

Training

Four of the seven agencies require pre-employment training or certification in order to reduce initial training costs.

One of the seven agencies requires pre-promotional training and certification.

All agencies conduct skill maintenance programs for suppression personnel. Records of training provided are not readily available.

One of the seven agencies has developed a pre-fire planning program which includes detailed mapping and data regarding target hazard occupancies. Periodic review of plans are scheduled as tactical training sessions.

One fire district has assigned one person as a full time training officer on a 40 hour week basis. One other agency has identified a need for a full time training officer.

None of the fire agencies have developed a training center. Some of the agencies periodically participate in training sessions at the San Leandro, Hayward or Pleasanton training centers. However, a comprehensive scheduled training program conducted in conjunction with neighboring departments has not been developed.

ECFPD participates with San Leandro in their recruit academy program when new employees are available. ECFPD also participates in the South Zone Mutual Plan training exercises which are conducted according to an established schedule.

All agencies except O.E.S. and CFP have implemented a program to meet the new Department of Motor Vehicles licensing requirements.

Four of the seven agencies have implemented the required Haz Mat training and skill maintenance program.

TRAINING PROGRAMS BY AGENCY

	CDF	CFP	CVFPD	ECFPD	FFPD	RFPD	O.E.S.
Pre-employment Training/Cert.	NO	NO	YES	YES	YES	NO	NO
Pre-promotional Training/Cert.	YES	NO	NO	NO	YES	NO	NO
Skill Maint. Training	YES	YES	YES	YES	YES	YES	YES
Driver Training	YES	NO	YES	YES	YES	YES	NO
Haz Mat Training/Cert.	YES	YES	YES	NO	YES	YES	NO
Pre-fire Planning	YES	NO	NO	NO	YES	NO	NO
Fire Code/ Prev. Trng.	(1)	NO	NO	NO	YES	NO	NO
(1) Public Resource Code enforcement training							

Fire Apparatus Maintenance and Replacement

Scheduled apparatus replacement and funding programs have not been established with the exception of FFPD. Apparatus replacement criteria have not been adopted by the governing bodies. Supporting records systems have not been developed which provide the data needed to evaluate and document the need for apparatus repair or replacement. Although detailed data is available from the agencies which conduct the maintenance, a system of gathering and analyzing this data to support maintenance and replacement needs are not provided.

Preventive maintenance programs are conducted by all fire agencies. CFP, O.E.S. and Santa Rita Jail use the services of the county public works department. ECFPD and CVFPD contract for services with a private vendor. The engine at Sunol is maintained by CDF through the CDF's standard maintenance program. FFPD contracts with the City of Hayward but is considering contracting with the same private firm as ECFPD and CVFPD to reduce costs and improve service. These programs include scheduled preventive maintenance inspections and well as repair services. First line apparatus are inspected every six months. Reserve apparatus are inspected annually.

Each department has established procedures for operator inspection and servicing of apparatus and vehicles, including on-board equipment.

The engine provided by the county for the CDF/Sunol station was not outfitted with adequate equipment when it was delivered to CDF. Requests for funding to adequately equip the engine have not been approved.

One engine assigned to the CFP has been identified by the fire chief as unreliable and unsafe to operate but is still in service.

There are twenty-eight fire apparatus which are maintained with funding from county fire agencies. Nineteen of these vehicles are engines. Nine of these engines (47%) are more than 15 years old.

AGE OF FIRE APPARATUS

APPARATUS TYPE	AGE OF APPARATUS				
	1 - 5 yrs.	6 - 10 yrs.	11 - 15 yrs.	16 - 20 yrs.	21+ yrs.
Engine	6	3	1	7	2
Truck	1				
Squad	3	3	1	1	

The age of the apparatus appears to have a direct relationship to reliability. The downtime of the nineteen engines was analyzed by the average age of the apparatus for each agency.

AGENCY	AVERAGE AGE OF APPARATUS	FIVE YEAR AVERAGE ANNUAL DOWNTIME
CFP	18.5 yrs.	1,631 hrs.
O.E.S.	17.5 yrs.	806 hrs.
ECFPD	12.6 yrs.	374 hrs.
CVFPD	9.2 yrs.	591 hrs.
CDF	4.0 yrs.	399 hrs.
FFPD	5.0 yrs.	24 hrs.

It should be noted that the majority of the down time for CFP apparatus resulted from breakdowns rather than scheduled maintenance.

INTRODUCTION

The information in this report has been gathered and analyzed to identify the current and projected service demands for fire protection, emergency medical services and hazardous materials control programs provided by fire protection agencies in the unincorporated areas of Alameda county.

The representatives of the agencies who make up the management/planning team as identified in Task 1 are requested to review this data for accuracy and completeness.

After the review and approval of this data is completed it will be used as the basis to establish service level standards in Task 3 and identify resource requirements in Task 4.

This report includes:

- o A definition of the county's responsibility for the delivery of fire protection, EMS, HAZ MATS and natural disaster services within the unincorporated areas.
- o A definition of the organizational structure of each agency.
- o A description of the area served by each agency. The boundaries of each agency which have been be displaced on a maps.
- o The current resources of each agency which include: fire stations, apparatus, equipment and personnel (career and volunteer by rank).
- o The land use within each agency, classified as : urban, rural, urban interface or wildland/watershed areas to the extent that this information is available.
- o Projected changes in population, zoning and land use to the year 2000 from the County Planning Department.
- o The existing service level standards of each agency.
- o Current incident response resources and response times which will include the average response times of the first-due unit and the average response times of full-alarm assignment units, the number/type of apparatus and the number/rank of personnel by type of incident, to the extent this data is maintained.
- o Mutual aid and automatic aid agreements and activity rates related to these agreements.

- o Conditions or programs which have major impacts upon the fire protection system, including:
 - water supply for fire protection,
 - topography,
 - transportation system limitations.
- o Current and potential service demands based upon risk potential and incident experience for:
 - Fires
 - EMS
 - HAZ MATS
 - Natural disasters
- o The current programs of each agency including:
 - organizational structure
 - membership and turnover
 - fire prevention programs
 - risk mitigation codes and ordinances
 - public fire safety programs
 - emergency medical services, including heavy rescue
 - hazardous materials controls
 - fire and arson investigation
 - mutual aid, automatic aid or joint powers programs
 - communications and dispatch systems
 - apparatus maintenance and replacement programs
 - training and employee development
 - pre-fire planning
 - physical fitness and health standards
 - agency expenditures for past five years
 - funding sources

A summary of the findings which resulted from this analysis is provided at the beginning of this report.

At the first planning team meeting, the management/planning team identified a number of problems or issues which should be considered in this planning project. Twenty-one problems/issues were identified and prioritized through the use of the "Nominal Group Process."

<u>Priority</u>	<u>Problem/Issue</u>
1.	Provide adequate funding and budget allocations.
2.	Service levels should be increased within budget constraints.
3.	Develop standardized levels of service within the unincorporated areas, including a fire station location plan.

4. Expand fire prevention and public education programs including the addition of personnel.
5. Establish a fire protection plan for new developments which includes in-fill developments, high density developments and annexations.
6. Define adequate infrastructure-structure standards, i.e.; roads, access, water supply, etc. to meet fire protection needs.
7. Establish a full-time training division and construct a training facility.
8. Evaluate the efficiency and effectiveness of current contract programs and potential consolidation programs.
9. Develop an apparatus standardization and replacement program.
10. Expand and up-grade water systems.
11. Develop a fire station location and replacement program.
12. Up-grade the communications system including compliance with the Insurance Service Office (ISO) recommendations and the installation of an 800 MH radio net.
13. Increase staffing.
14. Develop improved HAZ MAT and disaster response capabilities.
15. Adopt improved health and safety programs such as NFPA 1500.
16. Fire protection requirements for new developments should be established which may differ from requirements of existing developments.

No priority was assigned these problems/issues:

- o The role of the fire service in emergency medical services should be defined.
- o Automatic fire sprinkler systems and fire retardant roofing should be required by ordinances in all occupancies including residential occupancies.
- o Fire protection programs should be transferred from law enforcement to fire protection agencies.
- o The future fire protection costs for the county should be identified.
- o Advanced fire protection technology should be evaluated.

County responsibility for Fire Protection, Emergency Medical Services (EMS), Hazardous Materials (HAZ MAT) and Disaster Mitigation Services

The County of Alameda is responsible for fire protection, EMS, HAZ MATS and disaster mitigation services in the unincorporated areas of the county. See Appendix L for an outline of the EMS program and Appendix N for an outline of the Haz Mat program.

Fire Protection Services

Fire protection services are provided by a variety of programs (See Figure 1 and Map 1) which include:

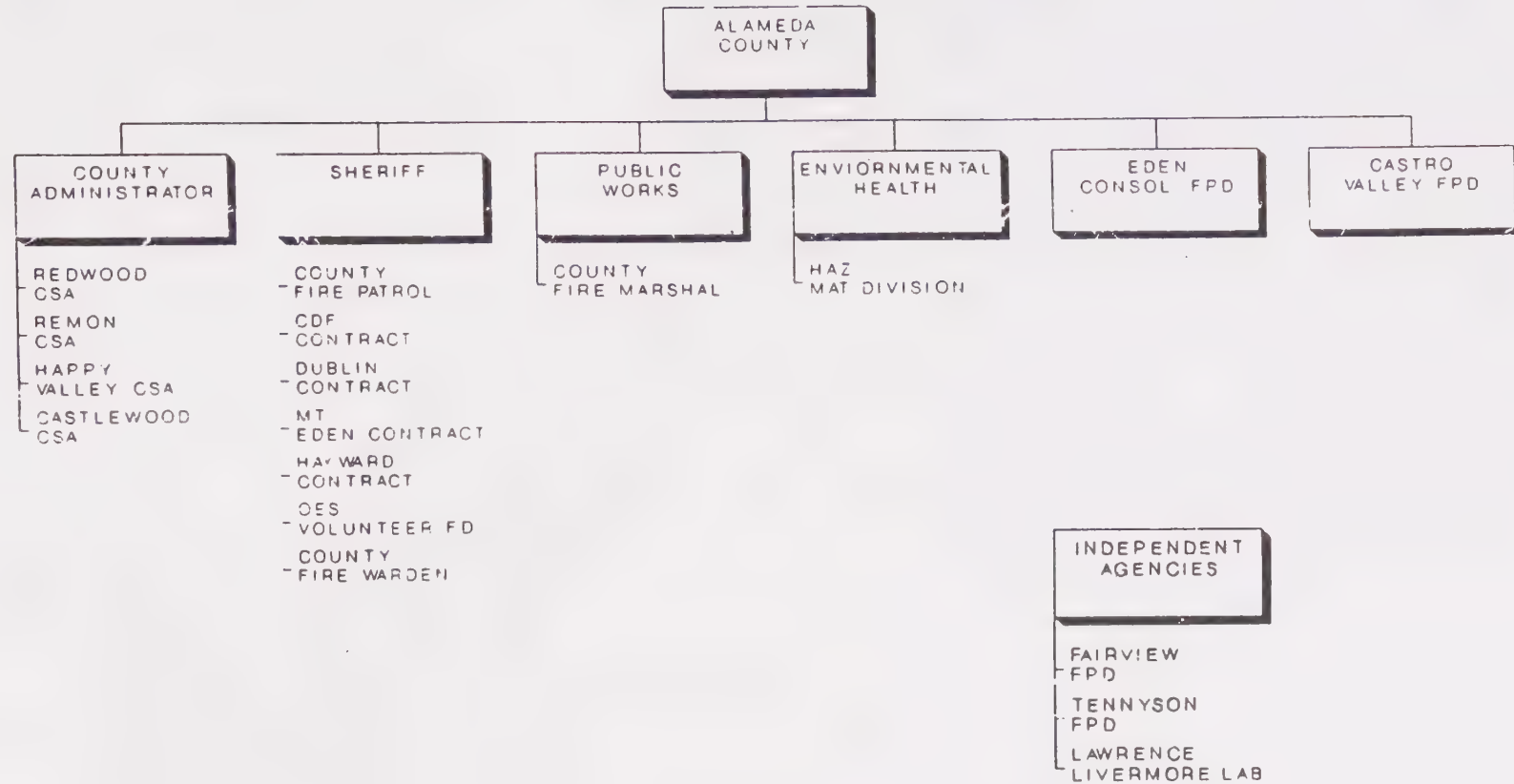
- o Fire districts under the direct authority of the Board of Supervisors.
 - Eden Consolidated FPD
 - Castro Valley FPD
 - Tennyson FPD
- o An independent fire district (Fairview FPD)
- o Sheriff's Department Fire Protection programs:
 - County Fire Patrol
 - The O.E.S. Fire Department
 - Santa Rita jail fire protection
 - Contracts for fire protection with:
 - California Department of Forestry and Fire Protection
 - Eden Consolidated Fire Protection District
 - City of Pleasanton
 - City of Hayward
 - Dougherty Fire Authority
- o California Department of Forestry (State Responsibility Areas)
- o East Bay Regional Park District (EBRPD)
 - Redwood Fire Protection District
- o A private fire department at the Lawrence Livermore National Laboratory (LLNL)

Disaster Planning






The county maintains an Office of Emergency Services (OES) within the sheriff's department. This agency is responsible for overall disaster planning and mitigation.

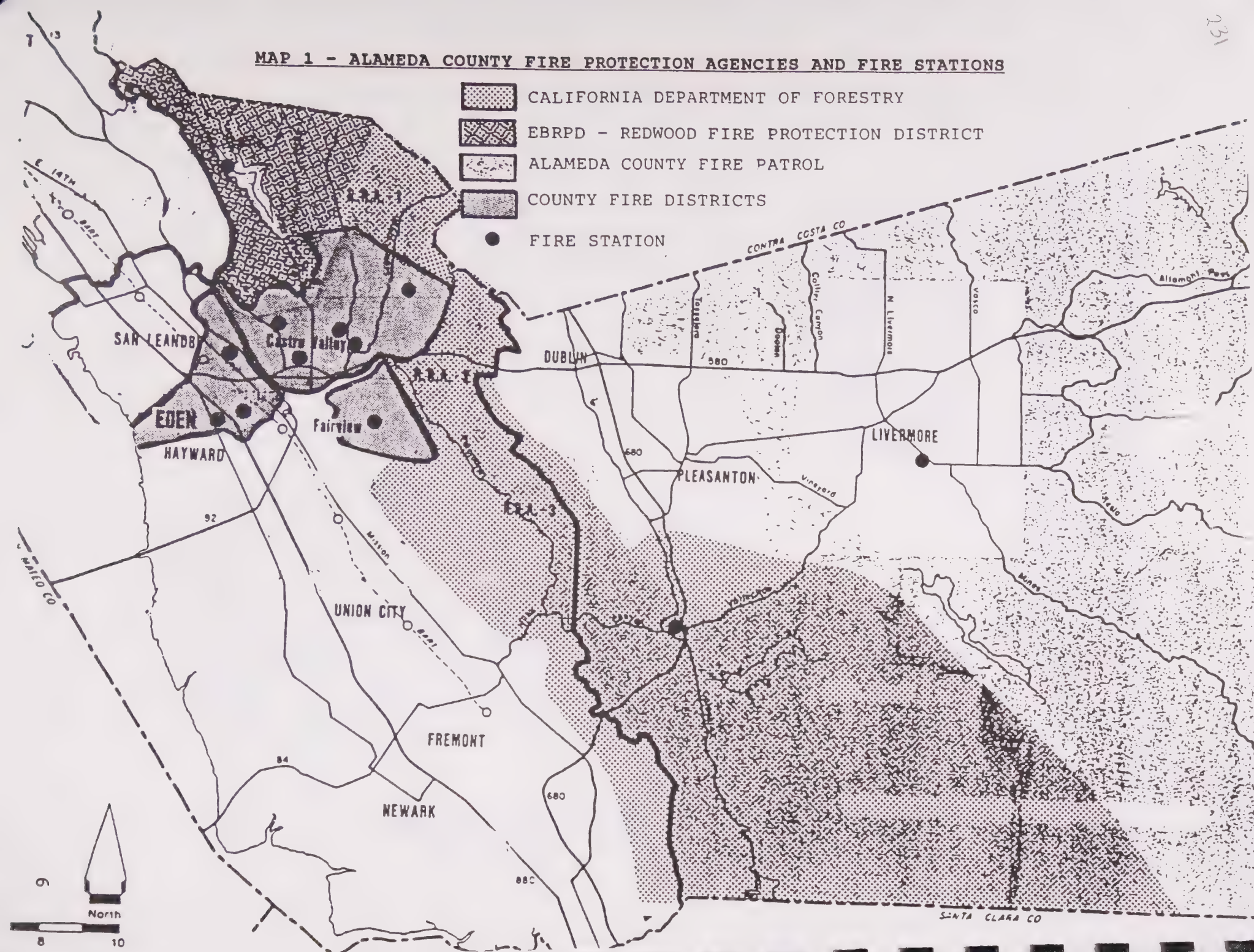
A volunteer fire department and search and rescue program has been organized within OES. The O.E.S. fire department provides support to all county fire departments in routine incidents as well as disaster response operations.

FIGURE 1 - FIRE SERVICES IN UNINCORPORATED ALAMEDA COUNTY



MAP 1 - ALAMEDA COUNTY FIRE PROTECTION AGENCIES AND FIRE STATIONS

-  CALIFORNIA DEPARTMENT OF FORESTRY
-  EBRPD - REDWOOD FIRE PROTECTION DISTRICT
-  ALAMEDA COUNTY FIRE PATROL
-  COUNTY FIRE DISTRICTS
-  FIRE STATION



Fire Loss Management Systems wishes to acknowledge the support and cooperation provided by many persons in the efforts to gather this information they include: Mr. Dan Regan of the County Administrator's Office; Mr James Sorensen and Betty Croly, County Planning Planning Department; Mr. Mike Hood, County Building Official, Capt. Timothy Ostlund, Deputy Mike Quinn, Deputy Cathy Case, Alameda County Sheriff's Office; Chief Ted Ferrera, County Fire Patrol, Chief Robert Waberski, D/C Norbert Hudak, Castro Valley Fire Protection District; Acting Chief Bruce Bradley, Eden Consolidated Fire Protection District; Chief Ralph Yunghans, Fairview Fire Protection District; Battalion Chief Mike Martin, California Department of Forestry and Fire Protection; Chief Joe Ribini, East Bay Regional Park District; Jeff Ramsey, Dave Tebaldi, Dave Wheeler, IAFF LOCAL 1428; Diane Akers, Alameda County Emergency Medical Services; Mr. Ed Howell, Alameda County Environmental Health Department; Mr. Chet Petersen, Tennyson Fire Protection District; Fire Chief Dennis Van der Matten, Assistant Chief Paul Gantt, Livermore Fire Department; Chief George Withers, Pleasanton Fire Department; Chief Harold Ritter, Dougherty Fire Authority; Mr. Joe Garcia, California State Fire Marshal's Office.

ALAMEDA COUNTY FIRE PATROL

The Alameda County Fire Patrol is a fire department within the Safety Services Division of the Alameda County Sheriff's Department. (See Figures 2 and 3)

The County Fire Department services 347 square miles of unincorporated area of the county which is located in the eastern portion of the county. (See Maps 1 and 2) The department is located in a fire station within the city limits of the City of Livermore.

The fire chief (Chief District Fire Warden) of the County Fire Patrol coordinates the contracts with fire agencies which also provide service to the unincorporated areas. These are CDF/Sunol, City of Hayward, City of Pleasanton, East Bay Regional Park District, Eden Consolidated Fire Protection District, and the Dougherty Fire Authority.

CDF/Sunol Under this agreement CDF provides structural fire protection, rescue and emergency medical services in those areas of the county which are considered state responsibility areas (SRAs) for willand fire protection and are not within the boundaries of a fire district or the areas served by the County Fire Partol. (See Map 1)

City of Pleasanton The City of Pleasanton provides fire suppression, rescue and emergency medical services in the areas known as Castlewood and Sycamore/Happy Valley. The city also has an informal response agreement with the County Fire Patrol along Dublin Canyon Road parallel to Highway 580 and with CDF for mutual threat zones along Foothill Road parrallel to Highway 680.

Eden Consolidated Fire Protection District The district has a contractual agreement with the county to provide fire suppression serivces to the county hospital and other county buildings in the area of the hospital.

Dougherty Fire Authority The Dougherty Fire Authority has an agreement with the county to provide fire suppression services to the new Santa Rita Jail. The details of this agreement are still being negotaited although the fire authority is responding to incidents at the jail.

East Bay Regional Park District The district provides fire suppression, EMS, rescue and Haz Mats control services in the unincorporated areas of the county which are adjacent to the regional parks (See Map 1)

The City of Hayward The remaining areas of the Tennyson Fire Protection district are protected by the City of Hayward under contract with the county. The Tennyson Fire Department has been disbanded and the fire station is currently being sold. A board of directors will continue to oversee the affairs of the district until this area is annexed to the city of Hayward..

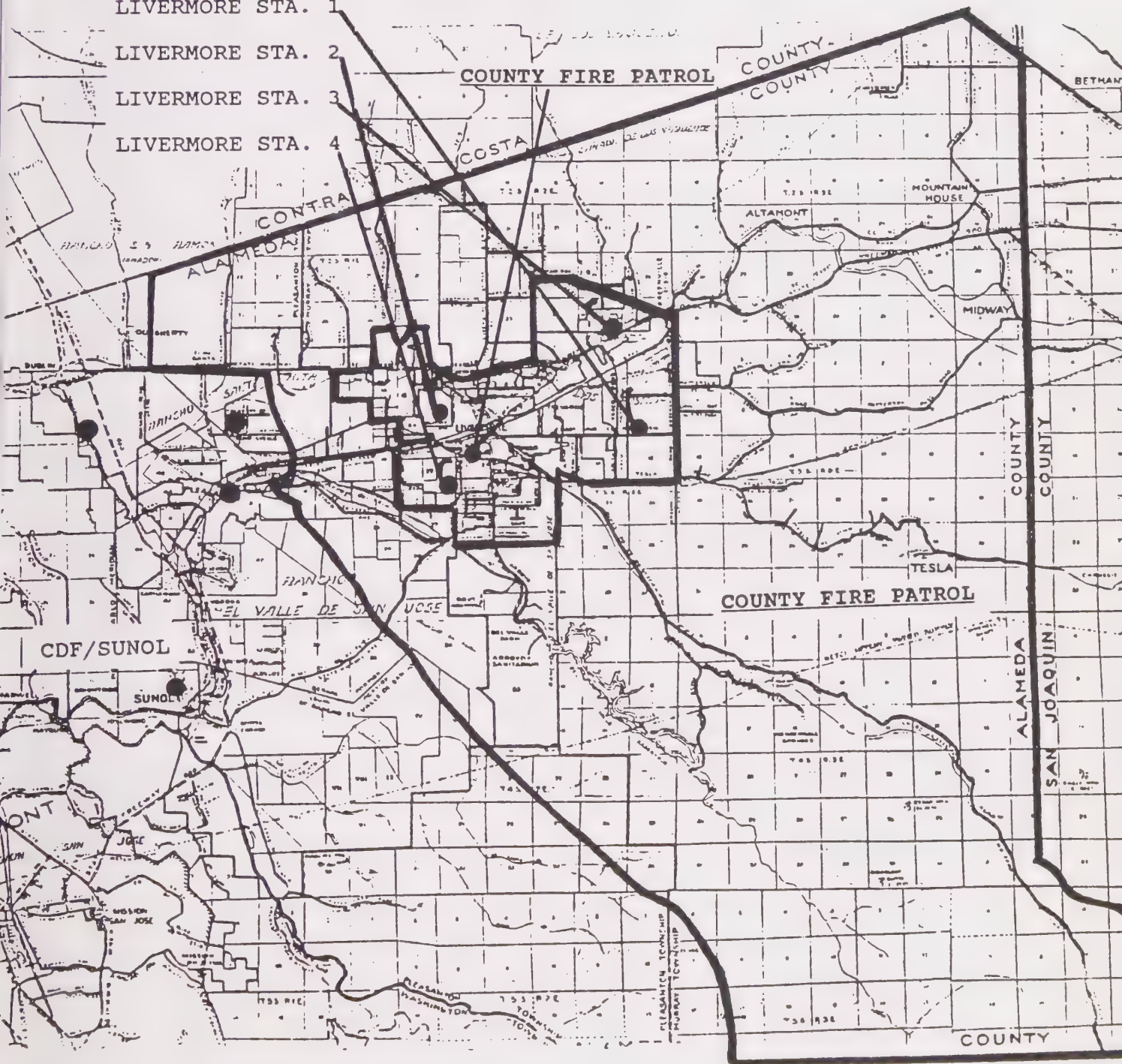
MAP 2 - COUNTY FIRE PATROL AREA

LIVERMORE STA. 1

LIVERMORE STA. 2

LIVERMORE STA. 3

LIVERMORE STA. 4



The County Fire Patrol was originally formed in 1904 by the Cattleman's Association to provide protection against wildland fires. In the early 1940's the Fire Patrol was formally organized under county control and surplus military equipment was provided. In 1970 the Fire Patrol was again reorganized and placed under the control of the Sheriff. Until the early 1970s the Fire Patrol maintained a squad unit at Mountain House to provide wildland protection and staffed a lookout tower at Crane Ridge. With the formation of incorporated cities and the related annexations the areas protected and the funds to support the Fire Patrol have decreased.

Fire protection personnel were maintained at the county hospital until 1986 at which time that operation was discontinued. Some of the personnel from that facility were transferred to the Fire Patrol to fill existing vacancies. One fire captain and two fire fighters positions are still listed on the Fire Patrol's authorized strength. The funds for these positions are used to maintain minimum staffing.

Description of Area Served

The area served by the County Fire Department encompasses 224,087 acres; 99.6 percent (223,370 acres) is open space, 0.3 percent (717 acres) is residential, commercial, industrial and transportation uses make up the remaining 0.1 percent (22 acres). (See Table 1)

Most of these areas are farmland or range lands. A slow but steady annexation of lands to the incorporated cities is projected to continue through the year 2000.

The number and type of occupancies which currently exist in this area are listed in Table 2.

The unique risks within the range-land areas consist of grass and brush fires driven by high winds during the fire season, auto accidents and HAZ MATS incidents.

TABLE 1 - CURRENT AND PROJECTED POPULATION AND LAND USE - 1989 - 2000

Community Development	Projections			
	1989	1990	1995	2000
Population	6,862	6,200	5,600	6,300
Area (sq. miles)	350	346.8	340	300
Land use (acres)				
Residential	700	800	900	1000
Commercial	15	20	25	30
Industrial	2	1	0	0
Open space	223,370	223,360	223,350	223,125
Total	224,087	224,181	224,275	224,155

TABLE 2

<u>Occupancy/structure Type</u>	<u>Total</u>	<u>Sprinklered</u>	<u>With Smoke Detectors</u>
Mobile Home Units (R-3)	0		
Single-family Dwellings (R-3)	981+	unk.	unk.
Hotel/Apts. (structures R-1)	0		
Hotels/Apts. (units) (R-1)	0		
Commercial (B-2)	43	1	unk.
Health Care (I)	0		
Public Assembly (A)	1	No	Yes
Schools (E)	2	No	Yes
Government Buildings (B-2)	0		
Industrial/High hazard (H)	0		
Other Highways & Roadways	40 + miles highways 250 + miles of county roads		
Parks	3		
Unoccupied buildings, barns sheds, etc.	5500	unk.	No

Fire Department Resources

The County Fire Patrol is staffed by thirteen personnel (See Table 3). The department is authorized to have 31 personnel. The department was staffed with 31 in 1986. However, the staffing level has decreased to 13 over the past four years due to the closing of the hospital fire protection program and the discontinuance of the intermittent employee program. (See Table 4)

TABLE 3 - CURRENT NUMBER OF PERSONNEL AND COMPENSATION

	<u>Career</u>	<u>Volunteer</u>	<u>Monthly Salary (1)</u>
Chief	1	0	\$4,369.73
Captain	3	0	4,279.00
Firefighter/Engineer	9	0	3,567.00
Total	13	0	

- (1) Fringe Benefits - 29 percent
 Monthly compensation for EMTs \$25/month
 College degree or Fire Science Certificate - \$30/month
 Four or more college units per quarter - \$25/month

TABLE 4 - STAFFING 1986 TO 1991

	1986/87	87/88	88/89	89/90	90/91
Chief	1	1	1	1	1
DFW/Captain	4	3	3	3	3
DFW/firefighter	11	9	9	9	9
DFW/FF/NH	15	0	0	0	0
Clerical	0	0	0	0	0
Total	31	13	13	13	13

DFW = Deputy Fire Warden

NH = Intermittent Employee

Position Titles

The Sheriff's Department captain, in the Specialized Services Section, to whom the fire chief reports has the designated title of Fire Warden. The official titles of department personnel and the comparable traditional fire service titles are listed below. The traditional titles will be used throughout this report for ease of comparison with other fire protection agencies. The designation of personnel as Fire Wardens has no known statutory meaning or authority.

Chief District Fire Warden
 District Fire Warden
 Deputy Fire Warden

Fire Chief
 Fire Captain
 Firefighter

The department has experienced a relatively high usage of sick leave and injury leave. The annual and five-year authorized leave usage are listed in Table 5.

TABLE 5 - PERSONNEL AUTHORIZED LEAVE STATISTICS

YEAR	SICKLEAVE	INJURY	VACATION	DISABILITY INJURY	RETIRED	TURNOVER
1989	3244	0	3409	3	1	15.38%
1988	1298	1816	2489	3	0	0
1987	3917	1200	2438	3	2	30.77%
1986	6141	4951	1950	2	1	15.38%
1985	1782	1656	3068	1	0	00%

Five Yr.

Average 3276 1925 2671 2.4 1

The total five-year average annual usage of authorized leave is 8,639 hours total or 664.5 hours per year per person.

The minimum daily staffing of the station is three personnel. Where necessary, minimum staffing is maintained through the use of recall personnel on overtime.

TABLE 6 - OVERTIME EXPERIENCE 1986/87-90/91

YEAR	OVERTIME HOURS
1990	2361
1989	2219

FIGURE 2 - ALAMEDA COUNTY SHERIFFS DEPARTMENT
SPECIALIZED SERVICES SECTION
ORGANIZATIONAL CHART

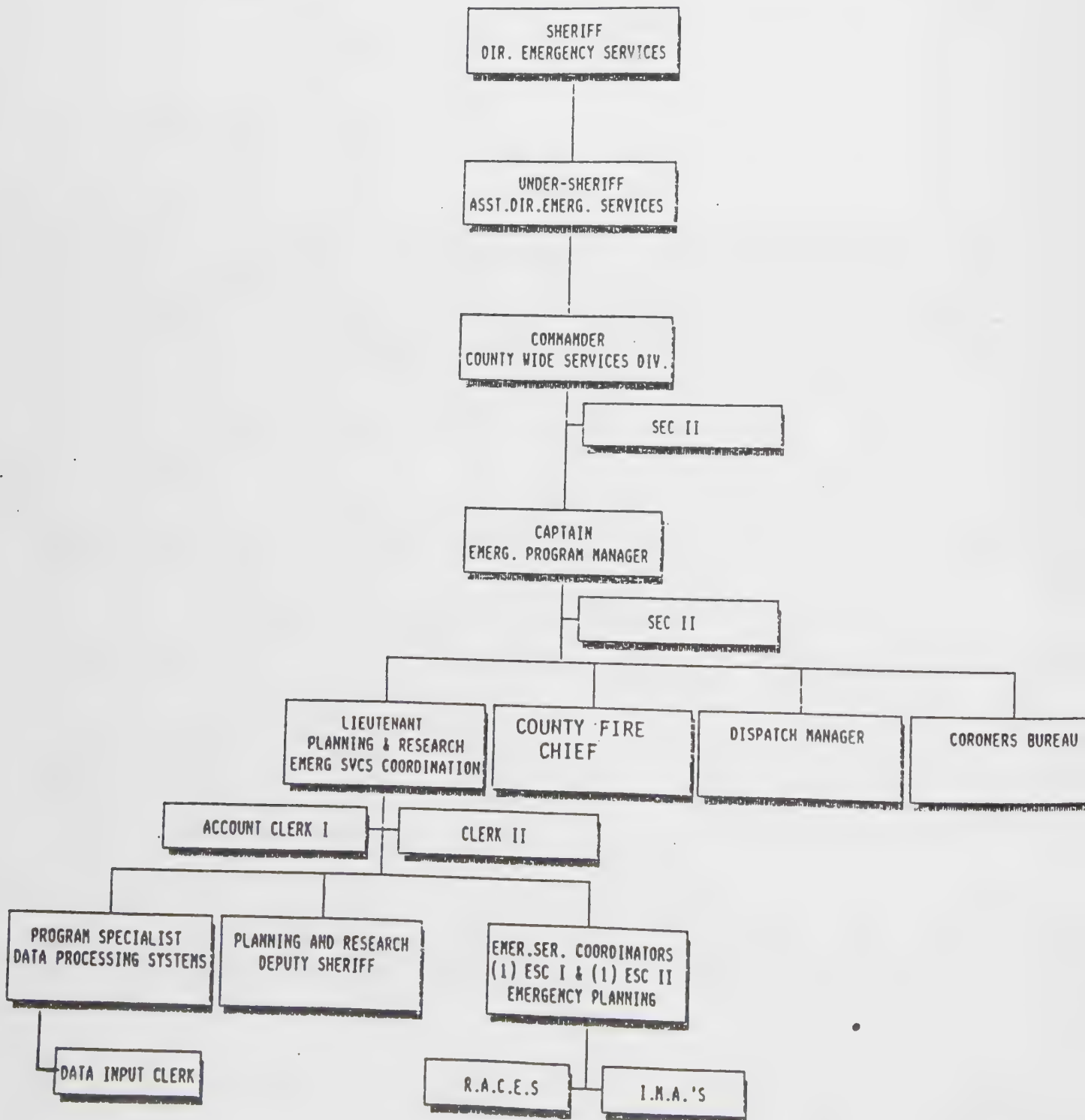
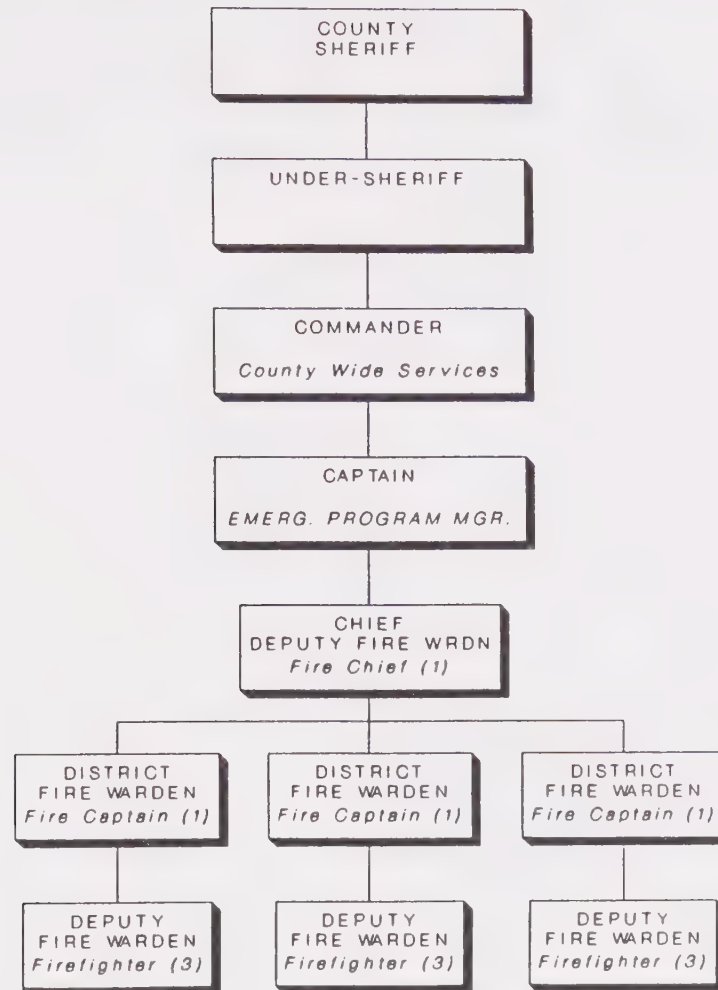


FIGURE 3 - ALAMEDA COUNTY FIRE PATROL - ORGANIZATION CHART



Facilities

The County Fire Patrol operates one station located at 1617 college Avenue in the City of Livermore (See Map 2). The fire station, constructed in 1950, is considered to be in fair condition with repairs to electrical system and interior finish needed. A detailed description of this station is contained in Table 7.

The five- and ten-minutes response zones for this station are identified in Map 3.

MAP 3 - FIVE- AND TEN-MINUTE RESPONSE ZONES FOR COUNTY FIRE PATROL

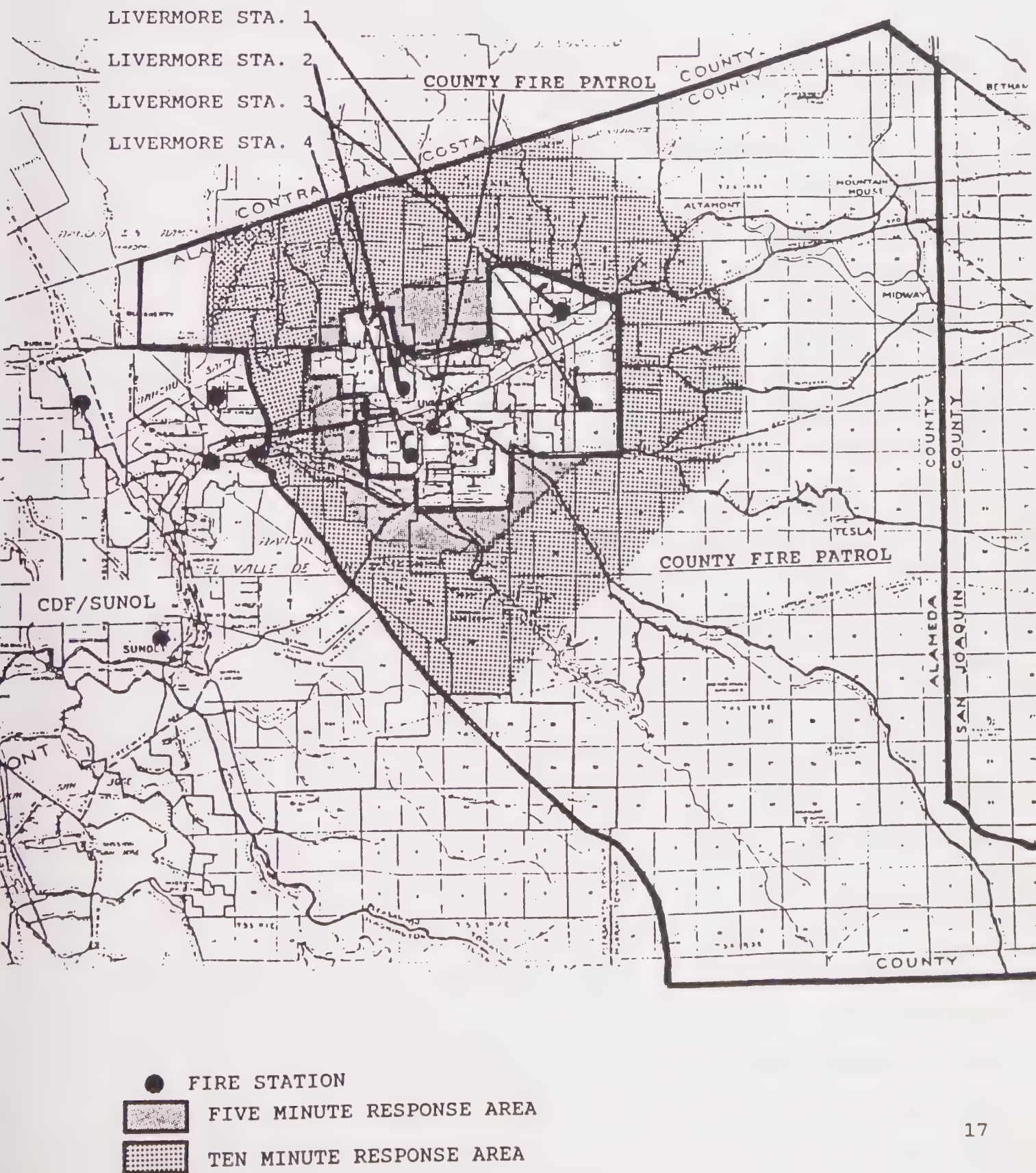


TABLE 7 - COUNTY FIRE PATROL FACILITY DESCRIPTION

Fire Station: Number 1: Name Alameda County Fire Patrol

Location: 1617 College Avenue, Livermore, CA

Structure owned by: Alameda County Property owned by: Alameda County

Type construction Concrete Year constructed 1950

Lot size 106 X 71 Building Size: sq. ft. 6,030

Apparatus room: No. bays 2 sq. ft. 2,720

Apparatus room capacity: engines 2, trucks 0, other 3/1 patrol /2 squads

Apparatus door height 9½ ft. width 10½ ft.

Is apparatus room "drive through"? (Yes) (No) X

Fitness area's sq.ft. 304 Storage area: sq. ft. 288

Living quarters: 690 sq. ft., Dormitory: 673 sq. ft.,

Individual rooms 537 sq. ft., Bath rooms 418 sq. ft.

Fuel tank 0 gallons gasoline; 0 gallons diesel

o If fuel is not a station, where is refueling available?

County Corporation Yard (Livermore) Diesel/Chevron Charge (GAS)/or Santa Rita Jail

Emergency generator (Yes) X (No)

o Generator will supply power to station

Classroom - meeting area 0 sq. ft.

Special equipment and/or facilities VCR

Description of condition including needed repairs/alterations:

Building fair condition/repairs needed, electrical, flooring, kitchen stove area

Administrative offices: Location: O.E.S. on Leandro

Total area administrative N/A sq. ft. (including storage)

Total area fire prevention N/A sq. ft.

Conference room N/A sq. ft.

Fire Apparatus and Equipment

The county Fire Department operates four fire apparatus and one staff car. These are described in Tables 8 to 12.

The Fire Chief has recommended that E-71 be placed out of service due to unsafe conditions. A squad unit is being constructed to replace Squad 71 which will be placed in reserve.

TABLE 8 - FIRE APPARATUS/VEHICLE SUMMARY

Apparatus	Date Purchased	Years In Service	Mileage
Engine 71	1971	20	140,000
Engine 72	1976	18	26,000
Squad 71	1986	6	48,000
Patrol 71	1986	6	18,000

A scheduled preventive maintenance program is conducted by the fleet maintenance division of the Alameda County Public Works Department. The apparatus and vehicles are leased from the Public Works Department which charges approximately \$500 per month for lease and fuel. Maintenance charges are added to these costs.

All apparatus and vehicles receive preventive maintenance on a scheduled frequency. All vehicles and apparatus are checked daily by operators to assure operational reliability.

Records of daily maintenance checks by operators are maintained. Detailed records of apparatus maintenance are maintained by the County Public Works Department. These records include: the type of maintenance, the cause of maintenance, repair parts and costs, the person or vendor who performed maintenance including personnel hours and costs and the total down time on a 24 hour day basis. This is a very complete maintenance data system and would adequately meet the needs of a replacement and maintenance scheduling program for the Fire Patrol. A summary of apparatus downtime and maintenance costs are contained in Table 13.

TABLE 9 - APPARATUS DOWNTIME AND MAINTENANCE COSTS 1986 - 1990

1990		1989		1988		1987		Annual Average	
DT	COST	DT	COST	DT	COST	DT	COST	DT	COST
Hrs.	\$	Hrs.	\$	Hrs.	\$	Hrs.	\$	Hrs.	\$
E71	893	2,353	16,371	637	10,688	2,083	19,365	1,491	14,078
	9,698								
E72	466	2,210	19,041	406	1,650	3	115	1,171	6,083
	3,522								
S71	1461	1,365	2,245	1,266	6,325	191	2,132	1,071	5,258
	10,288								
P71	533	612	1,944	518	1,623	1,552	5,779	804	3,776
	5,759								
Total									
3,353 hrs.		6,540 hrs.		2,827 hrs.		3,829 hrs.		4,537 hrs.	
\$29,307		\$39,601		\$20,478		\$27,391		\$29,195	
Average per Vehicle									
838 hrs.		1,635 hrs.		707 hrs.		957 hrs.		1,134 hrs.	
\$7,327		\$9,900		\$5,778		\$6,848		\$7,299	
DT = downtime									

Annual pump tests are conducted and detailed records are maintained.

A scheduled replacement policy and fund program have not been developed.

Engine 71 has experienced excessive downtime and maintenance costs. The apparatus is considered to be unreliable and unsafe to operate by the fire chief. The apparatus failed the pump test on September 18, 1990.

A new squad is currently being purchased which will replace Squad 71 as the first line unit. Squad 71 will be placed in reserve.

A manual inventory system is maintained for apparatus "on board" equipment and fire station furnishings and equipment.

All apparatus can be operated by drivers with Class B licenses. See training section for qualifications and training of operators.

TABLE 10 - ENGINE 71 INVENTORY

Apparatus number E71 Inventory number: P39A Model/yr. 1971 OLD10-4
 Type: (engine, truck, etc.) Engine Milage bottom of page See comment at
 Manufacturer: P. E. Van Pelt
 Date purchased 1971 Yrs. 1st line 19 Yrs. reserve None
 Scheduled replacement date 1986
 Engine: Make International Model FTV549 gas (X) diesel ()
 Transmission: Make Allison Model _____ Man. () Auto (X)
 Pump: Make Hale Model QLD10 Rated Cap. 1,000 gpm.
 Primer: Type air clutch Press. relief valve: Type QD
 Aerial/Snorkel/Squirt: Make _____ Model _____; _____ ft.
 Brakes: Front; Disc (), Shoe (X) Size _____ in. Note: Available at
 Rear; Disc (), Shoe (X) Size _____ in. Niles Heavy Equipment
 System; Air (X), Hydrovac () Maintenance Center.
 Emergency brake; Type Manual Air
 Steering: Power assist - yes (X) no ()
 Water Tank: Capacity 900 gal., Const: steel (X), fiberglass (), other
 Internally treated with _____ Date last treated 1971
 Enclosed cab, yes (X) no (); No. seats w/seat belts 1
 Personnel ride rear tail board, yes (X) no (), if yes, w/safety belts ()
 Foam: Proportioner, yes (), no (X); tank _____ gal.
 Wetting agent: Proportioner, yes (), no (X); tank _____ gal.
 Fire Hose: 4 or 5" _____ ft.; 3" 1,600 ft.; 2 1/2" _____ ft.; 1 3/4" 200 ft.
 Hardline
 1 1/2" 450 ft.; 3/4" 200 ft.; Suction hose 20 ft. 5 in
 Preconnects: 150 ft. 1 1/2 in.; 200 ft. 1 3/4 in.
 Master Stream Appl.: Capacity _____ gpm.; Preconnected yes () no (X)
 Breathing Apparatus: No. 2; Type SCBA; Spare Bottles 2
 Special equipment: Hurst tools jaws, cutters, 3 rams, air bags, first
aid equipment, stokes basket, K12, portable water pumps, and ropes
 Note: Installation of Class A foam proportioner is scheduled for FY
 1990-91.

Unable to provide accurate mileage due to rebuilding engine
 in 1989 and numerous engine changes and overhaul through
 the years. 21

Mobile Radio: Frequencies 154. 235 154. 070 154 280
 Portable Radios: No. I; Frequencies 154. 235 154 070 154. 280

Maintenance history:

Pump test: Date of last test 6-90; Results failure

Aerial ladder/snorkel: Date last test Results

	1-90 - 6-90	89	88	87	86	TOTAL
Downtime (total hrs)	<u>393 hrs.</u>	<u>2,352.5</u>	<u>637</u>	<u>2,082.5</u>	<u>147</u>	<u> </u>
Maintenance (\$)	<u>9,697.49</u>	<u>16,370.76</u>	<u>10,688.48</u>	<u>19,364.75</u>	<u>2,678.72</u>	<u> </u>

List on a all major repairs within the last five years:

Date	Repair	
1/29/90	Auto slack ADJ, exhaust, water leak	\$2,023.94
7/03/89	Engine and transmission	5,739.18
4/03/89	Replace air lines	2,625.91
3/13/89	Repairs	1,478.82
12/4/87	Rewire system	3,979.41
3/18/87	Reline brakes and set	1,782.11
1/14/87	Firehose	2,907.67

Describe major delays in obtaining repair parts:

The engine is very old and they no longer make the parts; therefore, you try to
 find old parts or make new parts.

TABLE 11 -ENGINE 72 INVENTORY

Apparatus number E-72 Inventory number: P38B Model/yr. HR121/76

Type: (engine, truck, etc.) Engine Milage 28081

Manufacturer: Howe Fire Apparatus Company

Date purchased 76 Yrs. 1st line _____ Yrs. reserve 14

Scheduled replacement date None

Engine: Make Ford Model _____ gas () diesel (X)

Transmission: Make Ford Model JN Man. (X) Auto ()

Pump: Make Waterous Model CSMB Rated Cap. 1250 gpm.

Primer: Type Rotary Gear Press. relief valve: Type Waterous

Aerial/Snorkel/Squirt: Make _____ Model _____; _____ ft.

Brakes: Front; Disc (X), Shoe () Size _____ in. Note: Available at
Rear; Disc (), Shoe (X) Size _____ in. Niles Heavy
Equipment Center.

System; Air (X), Hydrovac ()

Emergency brake; Type Manual/Air

Steering: Power assist - yes (X) no ()

Water Tank: Capacity 650 gal., Const: steel (), fiberglass (X), other
Internally treated with _____ 0 Date last treated 1989
(new tank)

Enclosed cab, yes (X) no (); No. seats w/seat belts 3
Personnel ride rear tail board, yes () no (X), if yes, w/safety belts ()

Foam: Proportioner, yes (), no (X); tank _____ gal.
Wetting agent: Proportioner, yes (), no (X); tank _____ gal.

Fire Hose: 4 or 5" 0 ft.; 3" 1,800ft.; 2 1/2" 0 ft.; 1 3/4" 0 ft.
Hardline
1 1/2" 200 ft.; 3/4" 200 ft.; Suction hose 20 ft. 6 in

Preconnects: (2) 150 ft. 1 1/2 in.; 200 ft. 1 3/4 in.

Master Stream Appl.: Capacity 1,000 gpm.; Preconnected yes () no (X)

Breathing Apparatus: No. 3; Type MSA; Spare Bottles 3

Special equipment: Stokes, rope, generator (2), lights, smoke ejector, extension
cord, chain saw

Note: Installation of Class A foam proportioner is scheduled for FY 1990-91.

Master stream appliance has been purchased and will be installed and 23
available in FY 1990-91.

Mobile Radio: Frequencies T.V. 104.235 Red 154.070 White 154.280

Portable Radios: No. 1; Frequencies T.V. 154.235 Red 154.070 White 154.280

Maintenance history:

Pump test: Date of last test _____; Results _____

Aerial ladder/snorkel: Date last test _____ Results _____

	1990	1989	1988	1987	1986	TOTAL
Downtime (total hrs)	<u>465.5</u>	<u>2,209.4</u>	<u>405.5</u>	<u>2.5</u>	_____	_____
Maintenance (\$)	<u>\$3,522.05</u>	<u>\$19,040.99</u>	<u>\$1,649.68</u>	<u>\$114.98</u>	_____	_____

List on a all major repairs within the last five years:

Date

Repair

June 9, 1989

Replace water tank

Describe major delays in obtaining repair parts:

TABLE 12 - SQUAD 71 INVENTORY

Apparatus number S-71 Inventory number: L35-B Model/yr. F-350-86

Type: (engine, truck, etc.) _____ Squad _____ Milage 41315

Manufacturer: Ford

Date purchased 86 Yrs. 1st line 3 Yrs. reserve 3

Scheduled replacement date _____

Engine: Make International Model 6.3L gas () diesel (X)

Transmission: Make Ford Model C-6 Man. () Auto (X)

Pump: Make Darley Model 24490 Rated Cap. 150 gpm.

Primer: Type Electric Press. relief valve: Type Darley

Aerial/Snorkel/Squirt: Make N/A Model N/A; _____ft.

Brakes: Front; Disc (X), Shoe () Size _____in. Note: Available at
Rear; Disc (), Shoe (X) Size _____in. Niles Heavy Equipment
Maintenance Center.

System; Air (), Hydrovac () N/A

Emergency brake; Type Manual (foot)

Steering: Power assist - yes (X) no ()

Water Tank: Capacity 250 gal., Const: steel (), fiberglass (X), other
Internally treated with 0 Date last treated _____

Enclosed cab, yes (X) no (); No. seats w/seat belts 3
Personnel ride rear tail board, yes () no (X), if yes, w/safety belts (

Foam: Proportioner, yes (), no (X); tank _____gal.
Wetting agent: Proportioner, yes (), no (X); tank _____gal.

Fire Hose: 4 or 5" _____ft.; 3" _____ft.; 2 1/2" _____ft.; 1 3/4" _____ft.
1 1/2" 100 ft.; 3/4" _____ft.; Suction hose 16 ft. 2 in

Preconnects: 150 ft. 1 1/2 in.; 400 ft. 3/4 in. (hard)

Master Stream Appl.: Capacity _____gpm.; Preconnected yes () no ()

Breathing Apparatus: No. 2; Type MSA; Spare Bottles 2

Special equipment: Hurst tool with power plant, first aid, chainsaw,
hand tools, warn front mount winch.

Note: Installation of Class A foam proportioner is scheduled for
FY 1990-91.

Mobile Radio: Frequencies TV 154. 235 Red 4. 070 White 154. 280 _____

Portable Radios: No. 1; Frequencies Same as above _____

Maintenance history:

Pump test: Date of last test 86; Results Manufacturer's test conducted in 1986: Good.

Aerial ladder/snorkel: Date last test N/A Results N/A

	89/90	88/89	87/88	86/87	85/86	TOTAL
Downtime (total hrs)	<u>1,461</u>	<u>1,364.5</u>	<u>1,266</u>	<u>191</u>	_____	_____
Maintenance (\$)	<u>10,327.55</u>	<u>2,244.67</u>	<u>6,324.52</u>	<u>2,131.99</u>	_____	_____

List on a all major repairs within the last five years:

Date

Repair

See apparatus maintenance records per attachments.

Describe major delays in obtaining repair parts:

No major problems on subject matter relative to this fire apparatus.

TABLE 13 - PATROL 71 INVENTORY

Apparatus number P71 Inventory number: K01E Model/yr. F-250-86
 Type: (engine, truck, etc.) Patrol (pickup) Milage 17625
 Manufacturer: Ford
 Date purchased 1986 Yrs. 1st line 3 Yrs. reserve 3
 Scheduled replacement date _____
 Engine: Make Ford Model 460 cu in gas (X) diesel ()
 Transmission: Make Ford Model C-6 Man. () Auto (X)
 Pump: Make Darley Model A506-1 Rated Cap. 150 gpm.
 Primer: Type Mech Press. relief valve: Type _____
 Aerial/Snorkel/Squirt: Make N/A Model N/A; _____ft.
 Brakes: Front; Disc (X), Shoe () Size _____in. Note: Available at Niles
 Rear; Disc (), Shoe (X) Size _____in. Heavy Equipment
 System; Air (), Hydrovac () N/A Maintenance Center.
 Emergency brake; Type Mechanical (foot)
 Steering: Power assist - yes (X) no ()
 Water Tank: Capacity 200 gal., Const: steel (), fiberglass (X), other
 Internally treated with _____0 Date last treated _____
 Enclosed cab, yes (X) no (); No. seats w/seat belts 2
 Personnel ride rear tail board, yes () no (X), if yes, w/safety belts ()
 Foam: Proportioner, yes (), no (X); tank _____gal.
 Wetting agent: Proportioner, yes (), no (X); tank _____gal.
 Fire Hose: 4 or 5" _____ft.; 3" _____ft.; 2 1/2" _____ft.; 1 3/4" _____ft.
 1 1/2" _____ft.; 3/4" _____ft.; Suction hose _____ft. _____in
 Preconnects: 100 ft. 1 1/2 in.; 200 ft. 3/4 in. (hard)
 *Master Stream Appl.: Capacity 1,000 gpm.; Preconnected yes () no ()
 Breathing Apparatus: No. 1; Type MSA; Spare Bottles _____
 Special equipment: Hand tools, first aid, MSA, SCBA

Note: Installation of a Class A foam proportioner scheduled in FY 1990-91.

Master stream has been purchased and will be installed and available in FY 1990-91.

Mobile Radio: Frequencies TV Red White
154. 235 154. 070 154. 280
Portable Radios: No. 1; Frequencies Same as above.

Maintenance history:

Pump test: Date of last test 86; Results Manufacturer's test conducted in 1989: Good

Aerial ladder/snorkel: Date last test N/A Results _____

	90	89	88	87	86	TOTAL
Downtime (total hrs)	<u>532.5</u>	<u>611.5</u>	<u>518</u>	<u>1,551.5</u>		
Maintenance (\$)	<u>5,758.84</u>	<u>1,944.33</u>	<u>1,623.20</u>	<u>5,779.13</u>		

List on a all major repairs within the last five years:

Date	Repair
------	--------

See apparatus maintenance record per attachment.

Describe major delays in obtaining repair parts:

No major problems on subject matter relative to this fire apparatus.

Revenues and Expenditures

Revenues

The County Fire Department is funded by the county Special District Augmentation Fund (SDAF) and the general fund as part of the Safety Services Division of Field services within the Sheriffs Department See Table 14 for history of revenue sources 1986/87 to 1989/90.

Other fire protection funding programs such as fire protection benefit assessment and new construction fire protection capital improvement mitigation fee programs have not been utilized.

TABLE 14 - COUNTY FIRE PATROL REVENUE SOURCES 1986/87 TO 1990/91

REVENUE SOURCE	1986/88	1987/88	1988/89	1989/90	1990/91
Property Taxes	\$231,275	\$279,714	\$292,135	\$404,116	\$309,168
SDAF	1,023,356	880,694	1,174,729	1,023,465	1,074,638
Total	\$1,254,631	\$1,160,408	\$1,466,864	\$1,427,581	\$1,383,806

Expenditures

An annual recommended budget is prepared by the fire chief and submitted through the chain of command to be included in the sheriffs budget as Field Services Fund 18-280. See Table 15 for a description of expenditure history 1986/87 to 1990/91. Expenditure requests are processed through the sheriffs department review and approval process. This process is considered to be unresponsive to fire protection needs.

TABLE 15 - COUNTY FIRE PATROL EXPENDITURES 1986/87 TO 1990/91

ACCOUNT	1986/87	1987/88	1988/89	1989/90	1990/91
PERSONNEL	\$700,946	\$737,929	\$777,781	\$927,079	\$964,162
NON-PERSONAL	704,196	578,194	659,455	859,919	1,018,471
CAPITAL	61,700	5,100	105,100	22,377	0
TOTAL	\$1,466,842	\$1,321,223	\$1,542,336	\$1,809,375	\$1,982,633

The five fire protection contracts are also contained in the County Fire Patrol budget. The amounts of these contracts are established by negotiations with the county administrators office. The expenditures within these contracts are coordinated by the county administrators office.

TABLE 16 - FIRE PROTECTION CONTRACTS

	1986/87	1987/88	1988/89	1989/90	1990/91
CDF				\$330,000	\$377,495
Regional Park	12,000	12,000	12,000	12,000	12,000
ECFPD	50,000	50,000	50,000	50,000	50,000
Pleasanton	77,000	77,000	77,000	77,000	77,000
Hayward	25,000	25,000	25,000	25,000	25,000
Dougherty F.A.	55,000	55,000	55,000	55,000	55,000

Total

Administrative

A policies and procedures manual is maintained. This manual contains job specifications for each position and operational policies and procedures. Staff functions are assigned to each fire captain (See Table 17)

TABLE 17 - COUNTY FIRE PATROL STAFF ASSIGNMENTS

Name	Rank	Staff Assignment
Randy Moore	Captain	A. EMS Coordinator B. Company Fire Prev. (local area) C. Public Information Officer D. Computer Coordinator E. Fire Apparatus Spec. Committee F. Physical Fitness Coordinator
Robert Moore	Captain	A. Training Coordinator B. HAZ MAT Coordinator C. Maintenance of Dept. Records D. Assist in fire hose maintenance E. Maintenance and certification of self-contained breathing appar. F. Apparatus Spec. Committee
George Silva	Captain	A. Purchasing Officer B. Fire appara. maint. and records C. Fire station maint. and records D. Fire appara. spec. committee

All records are maintained through manual systems except the data collected by Alameda County Dispatch Center (ALCO). Annual activity reports are submitted to the Sheriff's Department.

The employees are represented by the International Association of Firefighters (IAFF) Local 1420. The current Memorandum of Understanding (MOU) expires in January 1992. The department representative is Jeffrey Ramsey who is also the president of Local 1428. This firefighters local also represents Fairview, Castro Valley and Eden Consolidated Fire Districts.

FIRE PREVENTION

Fire prevention programs include: new construction plan reviews, construction inspections, periodic code enforcement inspections and fire safety education programs.

The authority to enforce local and state fire safety regulations has been assigned to the County Fire Warden in the Sheriff's Department. The captain in charge of the Specialized Services Section has been designated as the County Fire Warden.

The County Fire Patrol has been assigned fire prevention responsibility for all unincorporated areas outside the three fire districts. The fire chief of the County Fire Patrol devotes a large portion of his time to new construction fire code enforcement. Periodic inspections of existing occupancies are not scheduled. A limited number of inspections of commercial occupancies have been conducted by the engine company personnel in response to complaints. These inspections are conducted only in the areas within the response area of the fire station. Sunol and areas of similar distance from the fire station are not inspected since these would take the companies out of their districts.

The County Fire Patrol conducts a weed abatement program. The engine companies conduct surveys. Most company fire prevention activities are devoted to the weed abatement program. (See Table 18)

The contracts for fire protection with CDF, Eden Consolidated, Pleasanton, Dougherty Fire Authority, Hayward and the East Bay Regional Parks do not include fire prevention services but require only fire suppression services.

The California State Fire Marshal's office enforces state fire codes in health care and educational occupancies.

The County Fire Patrol has not implemented the permits and fee system provided for in the fire code.

An effective working relationship exists between the County Fire Patrol and the Building and Planning Departments.

A high level of built-in fire protection was provided during the construction of the new Santa Rita jail and a continuing program to maintain these systems is being conducted.

The number of inspections performed by the fire chief and the number of hazards found are listed in Table 18. The inspection records are a manual system and therefore data is not readily available to thoroughly evaluate the fire prevention programs.

TABLE 18 - FIRE PREVENTION ACTIVITIES

Inspections by Fire Chief	1990	1989	1988	1987	1986
School	1	2	6	2	4
Dwelling	0	1	0	2	1
Public Bldg.	2	5	0	0	0
Commercial	6	21	1	15	16
Other	0	12	2	0	0
Licensed Facility	12	12	unk.	unk.	unk.
Fuel Tanks	5	9	0	0	0
Fire Protection/ Site Plan Review	94	97	unk.	unk.	unk.
<hr/> Inspections by Engine Co.					
Weed Abatement	840	768	857	695	856
Agricultural burn permits issued	27	52	50	62	38
Commercial	0	1	0	0	0

The county is currently operating under the 1985 Uniform Fire code (UFC). A proposal to adopt the 1988 UFC is being prepared.

All building plans which include fire protection systems are reviewed and approved by the fire department. The plans are available at the County Building Department in Hayward.

A county ordinance (0-87-34) which exceeds the minimum requirements of the building code has been adopted. It requires that automatic fire sprinklers be installed in all new structures except in one- and two-family dwellings. Sprinklers are also required when certain buildings are remodeled or occupancy changes occur. (See appendix A)

The fire code (Section 10.309) requires that automatic fire sprinkler systems with 100 or more heads provide an electronic supervisory system which is approved by the local fire authority and monitored by a fire alarm company.

Fire protection requirements for dwelling occupancies in the unincorporated areas have been prepared and distributed for use by developers in the preparation of parcel and tract maps. These requirements also include minimum fire flow requirements, wildland safety requirements and fire safety requirements during construction.

The fire code regulates the use of "Safe and Sane: fireworks but does not prohibit their use.

WATER SUPPLY

Water Supply for Fire Protection

Most of the area protected by the County Fire Patrol is not served by water systems which provide the required fire flow from hydrants. Three water systems do exist which serve a limited number of residences. They are EBMUD (Zone 7), Livermore and the San Francisco Water Company.

Standards for water system requirements have been adopted which establish minimum fire flow requirements and criteria for the distribution of fire hydrants. (See Appendix E)

Fire hydrant flushing, flow testing and maintenance are performed by the water companies. The extent to which these programs are conducted are unknown to the fire department. Hydrant records are not maintained by the County Fire Patrol.

Where fire hydrants are not available for new residential developments a minimum water storage of 5,000 gallons of water is required. This storage requirement may be reduced if an approved residential sprinkler system is installed since fire flow requirements are reduced as a result of the installation of residential fire sprinklers.

A new fire hydrant funding program has been developed to provide for the installation of fire hydrants in areas where they are deficient. In 1988, the Board of Supervisors established a \$1,000,000 hydrant trust fund. Each district was allocated a portion of these funds. These funds have been deposited in a special fund by each district and the interest from these accounts are used to fund hydrant installations. (See Appendix H) The County Fire Patrol was allocated \$100,000. These funds are to be used in fire patrol areas and other contract areas, such as, CDF/Sunol. To date funds from this account have not been used.

INCIDENT STATISTICS

The incident activity experience for the County Fire Patrol for the period of 1986 to 1990 is contained in Table 19. Emergency medical calls are the most frequent emergency responses. Structure fire incident rates indicate a small increase while other incidents types remain relatively constant.

TABLE 19 - INCIDENT ACTIVITIES 1986 TO 1990

<u>Activity</u>	<u>1990</u>	<u>1989</u>	<u>1988</u>	<u>1987</u>	<u>1986</u>
EMS/Rescue	233	238	231	230	199
Structure	26	33	30	16	23
Vegetation	72	62	97	67	88
Vehicle	44	50	64	55	54
Other Fires	25	29	20	33	29
HAZ MAT	6	8	7	n/a	n/a
Service Calls	237	203	230	226	226
False/UTL	74	95	90	84	75
<u>Total Incidents</u>	<u>719</u>	<u>718</u>	<u>775</u>	<u>711</u>	<u>694</u>
Mutual aid					
Recd.	40	48	58	45	50
<u>Provided</u>	<u>119</u>	<u>121</u>	<u>105</u>	<u>99</u>	<u>84</u>
<u>Total Mutual Aid</u>	<u>159</u>	<u>161</u>	<u>163</u>	<u>144</u>	<u>134</u>

Response Standards

The minimum staffing of the Fire Patrol is three personnel per day. Occasionally a fourth person will be on duty.

The standard response to all incidents during the fire seasons (summer months) is three apparatus: a squad, engine, and patrol each staffed with one person. If a fourth person is on duty, that person responds with the squad.

In the non-fire season period (winter months), the standard response to all incidents is one engine and one squad. The squad is staffed with two personnel and the engine with one person. If four personnel are on duty both units respond with two personnel.

For mutual aid responses two personnel respond with the apparatus and two off-duty personnel are recalled to staff the station. If four personnel are on duty three respond on the mutual aid call.

Response time standards have not been adopted since response distances and travel times will vary considerably due to the size of the area protected by the Fire Patrol. See Table 19A and Map 2.

TABLE - 19A ESTIMATED RESPONSE TIME TO SELECTED AREAS WITHIN THE FIRE PATROL'S AREAS OF RESPONSIBILITY

<u>LOCATION</u>	<u>ESTIMATED TIME</u>
Mines Road to Santa Clara County	53 Minutes
Tesla to San Joaquin County (Carnegie)	23 Minutes
Del's Harbor-Lindemann Road	22 Minutes
Vasco to Contra Costa County	9 Minutes
Tassajara to contra Costa County	11 Minutes
Santa Rita (Old Facility)	7 Minutes
Arroyo to Dam	6 Minutes
Patterson Pass (Summit)	12 Minutes
Patterson Pass/Midway Road (via 580)	15 Minutes
Grantline/Mountain House Road	11 Minutes
Collier/Contra Costa County	10 Minutes
N. Livermore/Morgan Territory Road	8 Minutes
Vineyard/Pleasanton	8 Minutes
End of Dyer Road	14 Minutes

Emergency Medical Services

Approximately thirty-three percent of all calls for service are emergency medical calls. Eleven personnel are certified EMT-Is. All personnel have also been trained and certified to provide early defibrillation.

Hazardous Materials

Hazardous materials control programs are administered by the Alameda County Environmental Health Department's HAZ MAT Division. The County Fire Patrol has not implemented HAZ MAT control requirements, inspection programs or permit fees.

Operational procedures for HAZ MAT incidents have been developed and distributed by the county's HAZ MAT division. This division also operates a hazardous materials response unit which provides support to first responders. These personnel receive a 40 hour course as First Responder Operations many also have a chemical analysis background. The assistance provided by this unit includes:

1. Identification of HAZ MATS
2. Risk Assessment
3. Characterization of the incident
4. Recommendation for cleanup and decontamination
5. Collection of evidence and documentation

Hazardous Materials Management Plans (HMMP) are required and coordinated by the HAZ MAT division. Eighteen occupancies have been identified in the fire patrol's district which require a management plan. HAZ MAT information regarding these occupancies is not provided as required by 29CFR. However, the county is implementing a program which will provide the Fire Patrol with a computer and software through which the County HAZ MAT division will transmit copies of HMMPs.

Fire patrol personnel have not received the required 24-hour HAZ MAT First Responder training course.

Automatic and Mutual Aid Programs

The County Fire Patrol participates in the Twin Valley mutual aid program. The frequency of responses to mutual aid requests and the receipt of mutual aid assistance are listed in Table 19. Most of the mutual aid provided by CFP is in the State Responsibility Areas and the Sunol contract area.

Due to the minimal resources of the County Fire Patrol mutual aid is required on all structure fires and most wild land fires.

Automatic aid agreements have not been developed with neighboring jurisdictions. Verbal agreements exist with CDF-Sunol and Camp Parks.

Fire Investigation

Fire cause is determined by the officer in charge of an incident or the fire chief, upon request, and documented by completing the required California Fire Incident Report (CFIRS).

When the cause cannot be determined or when an incendiary fire is suspected the assistance of the Alameda County Investigation Team is available. This team consists of law enforcement and fire service personnel. (See Appendix J) The suspicious or arson fires in which the county Investigation Team participated are:

	Arson/Suspicious Fires	Arrest	Convictions
1990	1	0	0
1989	4	1	1
1988	1	0	0
1987	1	0	0

Communication and Dispatch

All fire agencies in the unincorporated areas are dispatched by the Alameda County Communications Center, which is operated by the Sheriff's Department. The Communications Center is located at 2000 150th Avenue in San Leandro.

The County Fire Patrol has three radio channels installed in all apparatus and portable radios:

1. 154.235 - Twin Valley Mutual Aid Channel
2. 154.070 - County-wide Fire Frequency
3. 154.280 - Statewide Mutual Aid Frequency

Radio reception is generally good through the district except for areas in hills in the eastern portion of the district where communications capability is deficient. There is a current proposal to install a radio repeater on Crane Ridge to improve the Sheriff's department communications. A repeater for the fire service would be installed at the same time.

An emergency generator is provided at the fire station which supplies power to the essential lighting and radios.

Training

A department training officer has been assigned to develop and maintain the training program.

A probationary firefighter study and drill program and a skill maintenance program has been developed. This program is a twelve month training course which consists of a detailed outline of skill development topics based upon the International Fire Service Training Association (IFSTA) manuals. This training is conducted by company officers. An evaluation system exists whereby the company officer certifies the successful completion of training for each skill. Quarterly and final exams are also conducted.

Skill maintenance training is conducted by company officers. The training officer prepares a list of training topics to be presented by the company officers. A long-range plan for the review of skills on a scheduled basis has not been developed.

Three personnel are certified instructors: the training officer and two firefighters. Two of the captains who are responsible for shift training are not certified instructors.

Records of training are maintained which identify the persons participating in training, the training topics and the personnel hours devoted to each training session. These are manual records. An evaluation of the adequacy of the training program is not readily available. Periodic reports and analysis of training are not prepared.

The department has not developed or implemented training programs to meet the needs of: mandated HAZ MAT training; driver training to meet the new Department of Motor Vehicle requirements; administrative and management skill development; accident prevention, and pre-fire planning. A physical fitness program is provided, however, physical fitness standards have not been adopted.

Pre-employment requirements have been adopted and are implemented through participation in the Tri-Valley Joint Recruitment and Selection program. Firefighter I and EMT-I certifications are pre-employment requirements. Pre-promotional training and education standards have not been developed.

The Twin Valley Fire Chief's Training Officers section is developing a HAZ MAT first Responder course which will meet the mandated requirements for training of fire service personnel. The County Fire Patrol will participate in that program when it is implemented.

A training facility is not available. However, the County Fire Patrol does participate in Twin Valley training sessions at the Pleasanton Training Center and at Livermore Fire Stations 1 and 2.

Veterans Administration Hospital

A Veterans Administration Hospital is located in the unincorporated area of the County, south of the City of Livermore. There is a fire department at the facility which staffs one fire engine and provides the necessary fire prevention services to the hospital in conjunction with the State Fire Marshal. In the event of a fire, Livermore Fire Department provides one engine company, one truck company and one battalion chief under an automatic aid agreement. This automatic aid agreement is presumed to continue under all alternatives considered in this plan.

EDEN CONSOLIDATED FIRE PROTECTION DISTRICT (ECFPD)

The Eden Consolidated FPD was formed in 1976 when the Cherryland, San Lorenzo and Ashland fire districts were combined to form the Eden Consolidated Fire Protection District. It is a dependent district with a board of directors, the members of which are appointed by the Alameda County Board of Supervisors.

The district encompasses 7.5 square miles of unincorporated area located between the City of San Leandro, the City of Hayward and the Castro Valley Fire Protection District. It encompasses the communities of Ashland, Cherryland and San Lorenzo. (See Map 4) The area within the district is considered "built-out" with a mix of single family residential, multi-family residential and commercial land uses. (See Table 20)

Two major freeways pass through the district. These present significant EMS, rescue and HAZ MAT incident work loads. The population of this area was approximately 50,000 in 1976. It is estimated to be 65,000 in 1990 and is projected to increase to 70,000 by 2,000. The community is primarily a residential area with supporting commercial, educational and health care facilities. A major shift in development is anticipated over the next 10 years which is the replacement of older large lot single family dwellings with multiple family dwellings.

MAP 4 - EDEN CONSOLIDATED FIRE PROTECTION DISTRICT



AUTOMATIC AID AREA



FIRE STATION

The occupancies and structures within the ECFD are listed in Table 20. This table also identifies the number of structures and occupancies which are provided with automatic fire sprinklers and/or smoke detection systems.

TABLE 20 - EXISTING STRUCTURES AND OCCUPANCIES - 1991

	TOTAL (Structures)	SPRINKLERED (Structures)	WITH SMOKE DETECTORS
Mobile Homes Units (units) (R-3)	232	0	unk
Single Family Dwellings (structures) (R-3)	12,000	16	unk
Hotels/Apts. (structures) (R-1)	414	18	unk
Hotels/Apts. (units) (R-1)	3,045	250	unk
Commercial (occup) (B-2)	1,000	150	unk
Health Care (structures) (I)	67	18	17
Public Assembly (structures) (A)	43	8	unk
Schools (structures) (E)	37	partial	unk
Government Buildings (B-2)	10	3	unk
Industrial/high Hazard (H)	6	6	3
TOTAL	16,854	219	20

The projected increases in structures and occupancies for the years 1995 and 2000 are listed in Table 21. These increases are based upon

TABLE 21 - PROJECTED INCREASES OF OCCUPANCIES/STRUCTURES 1900 TO 2000

	1990		1995		2000	
	TOTAL	SPRINK.	TOTAL	SPRINK.	TOTAL	SPR.
Mobile Homes Units (units R-3)	232	0	232	0	232	0
Single Family Dwellings (structures R-3)	12,000	16	11,500	16	11,000	16
Hotels/Apts. (structures R-1)	414	18	464	68	514	118
Hotels/Apts. (units R-1)	3,045	250	3,412	617	3,779	667
Commercial (occus. B-2)	1,000	150	1,000	150	1,000	150
Health Care (structures I)	67	18	67	18	67	18
Public Assembly (structures A)	43	8	43	8	43	8
Schools (structures E)	37	partial	37		37	
Government Buildings B-2	10	3	10	3	10	3
Industrial/high Hazard (H)	6	6	6	6	6	6
TOTAL	16,854	219	16,762	880	16,688	980

Organizational Description

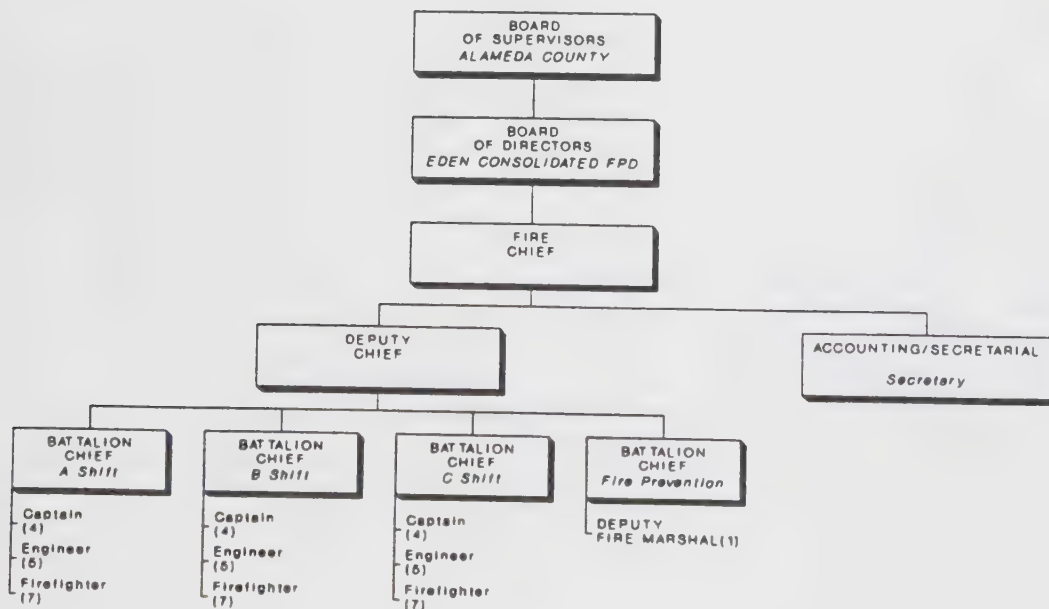
The ECPFD is a dependent district with a seven-member board of directors which are appointed by the Alameda County Board of Supervisors.

There are fifty-five career members of the fire district under the direction of the fire chief, See Table 22 and Figure 4.

TABLE 22 - DISTRICT PERSONNEL

Fire Chief	1
Deputy Chief	1
Battalion Chief	4
Deputy Fire Marshal I	1
Captain	12
Engineer	15
Firefighter	21
Secretary	1
Total	56

FIGURE 4 - EDEN CONSOLIDATED FIRE PROTECTION DISTRICT - ORGANIZATION



The district is organized in five divisions:

- o Administration
- o Fire Prevention
- o Suppression
- o Training
- o Accounting/Secretarial

Personnel in administration, fire prevention and accounting/secretarial work a 40-hour week with 8-hour days, Monday through Friday. The suppression division personnel work a 56-hour week with 24-hour shifts.

The C Shift Battalion Chief also manages the Training Division. Three engineers are assigned to the fire prevention bureau and conduct fire prevention activities on a 24-hour shift schedule.

The daily minimum staffing policy of the district is to maintain 13 personnel in the suppression division. This includes a battalion chief and three personnel assigned to each of four engines. When necessary, off-duty personnel are recalled on overtime to maintain minimum staffing.

The staffing history of the district is listed in Table 22A.

TABLE 22A - STAFFING HISTORY 1985/86 TO 1989/90

	1990/91	1989/90	1988/89	1987/88	1988/87
Chief	1	1	1	1	1
Deputy Chief	1	1	1	1	1
Battalion Chief	4	3	3	3	3
Fire Marshal	1	1	1	1	1
Captain	12	12	12	12	12
Engineer	15	15	15	15	15
Firefighter	21	21	21	21	21
Secretary	1	1	1	1	1
TOTAL	56	55	55	55	55

The average annual hours of authorized leave per district member is 358 hours. Table 23 describes authorized leave usage for the period of 1986/87 to 1989/90.

TABLE 23 - AUTHORIZED LEAVE HOURS 1986/87 TO 1989/90

YEAR	SICKLEAVE	INJURY	VACATION	DISABILITY	RETIRED	TURNOVER
1989/90	2,885	7,448	8,048	16	0	1
1988/89	5,712	2,064	10,776	4	1	0
1987/88	5,232	5,520	11,088	8	2	0
1986/87	2,918	5,536	11,552	9	2	0
4YR AV.	4,187	5,142	10,366			
4YR AV./ PERSON	76	94	188			

District Staff Functions

Staff functions are delegated to battalion chiefs (See Figure 5). Specific tasks within these functions are performed by captains, engineers and firefighters.

Monthly staff meetings are attended by all chief officers and the secretary. Quarterly meetings have recently been commenced which are attended by the chief officers and the fire captains.

The department secretary manages the accounting and clerical functions within the district.

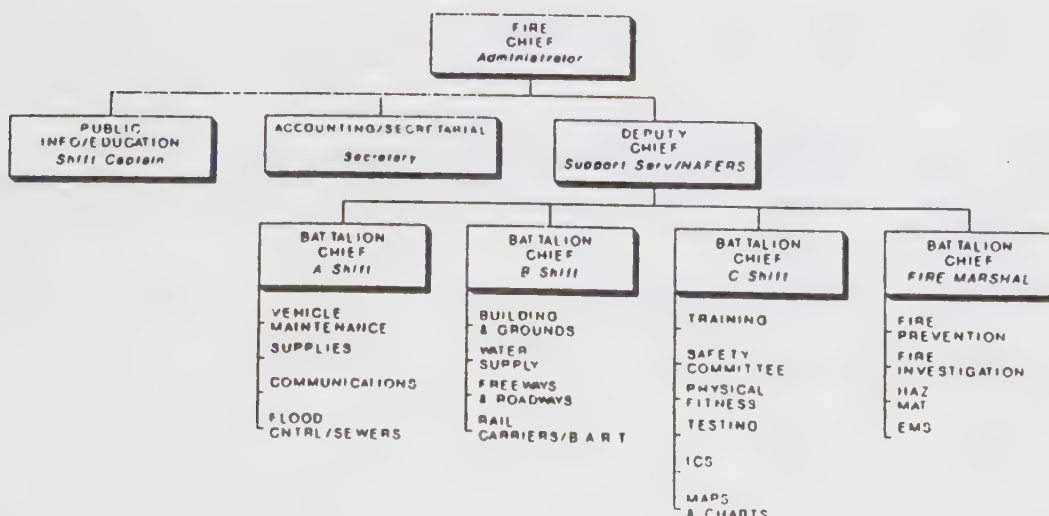
A computerized record system is provided which consists of four Apple/Mac computers. These computers are used for word processing and payroll. An inventory program is maintained on a Commodore computer. It is planned that this will be converted to the Apple/Mac system. It is planned to link these computers with a network program. Management information systems for incident reporting, fire prevention, training, etc. have not been implemented.

A records retention policy and procedure has been established by the county which includes the removal of records more than five years old. This program has not been implemented in the ECFPD.

Desk manuals for clerical/administrative positions have not been developed.

The non-management members of the district are represented by the Ashland Firefighters (IAFF Local 1428), which also represents the personnel of Castro Valley, Fairview and the County Fire Patrol.

FIGURE 5 - ECFPD STAFF FUNCTIONS



The estimated number of personnel hours devoted to department programs by suppression division staff per month are listed in Table 23A.

TABLE 23A - ESTIMATED SUPPRESSION DIVISION PERSONNEL HOURS BY PROGRAM

<u>Program</u>	<u>CAPT.</u>	<u>ENG.</u>	<u>FF</u>	<u>VOL</u>	<u>TOTAL</u>
Apparatus testing & maintenance		90	42		132
Breathing apparatus		15	15		30
Care & maintenance of stations	30	30	120		180
Dept. officer meetings					
Coffee breaks					
Incident reports	120				120
Performance evaluations/counseling	12				
Special committee meetings	6	6	6		18
Emergency responses	120	120	120		450
Fire hose care & maintenance	12	12	21		45
Fire hydrant testing & maint.	24	24	42		90
Pre-fire planning	120	120	210		450
Training:					
o New employee/members	20	20	20		60
o Skill Maintenance	210	210	420		850
o Volunteers					
o Driver/operator	12	12	21		45
o Hazardous materials	6	6	12		24
o Emergency medical	12	12	21		45
o Physical fitness	120	120	210		450
Fire code enforcement	120	120	210		450
Fire safety education	4	4	8		16
TOTAL HRS	1068	921	1588		3455

The estimated number of personnel hours devoted to programs by the administrative and fire prevention staff per month are listed in Table 23B.

TABLE 23B - MONTHLY ALLOCATION OF ADMINISTRATIVE AND PERSONNEL HOURS

Program	Fire Chief	Fire Marshal	Fire Insp.
Consultation	15		
Staff meetings	4		
Meetings w/ other departments	2		
Plan review	38		
Construction inspections	12		
Periodic scheduled inspections	24		65
Code committees	0		0
Professional associations	8		4
Training	0		4
Public education	0		4
Weed abatement	0		46
HAZ MAT requirements	14		10
TOTAL HRS.	117		133

List average monthly hours devoted to these tasks:

Task	Fire Marshal	Fire Insp.	Clerical
Correspondence preparation	30	12	0
Data/records system mgt.	10	28	0
Telephone	12	10	0
Training	4	4	0
Total:	56	54	0

Revenues and Expenditures

The district is funded through property taxes, special district augmentation funds (SDAF) and a contract with the county to provide fire suppression services at the Fairmont (County) Hospital.

The fire district revenues and revenue sources period of 1986/87 to 1990/91 are listed in Table 24.

New construction development fee program to mitigate the impact of new construction have not been developed. A benefit assessment program to fund district operations has not been developed.

A permit or service fee program has not been implemented.

The district budget is prepared annually, reviewed and approved by the Board of Directors and submitted to the Board of Supervisors for approval. District expenditures for the period of 1986/87 to 1990/91 are listed in Table 25.

TABLE 24 - ECFPD REVENUES 1986/87 TO 1990/91

	1986/87	1987/88	1988/89	1989/90	1990/91
Prop.Taxes	832,679	912,422	1,048,552	1,065,708	1,175,523
Augmt.Fnds	2,706,407	2,744,040	3,432,825	3,029,616	3,462,173
Fees					
Fines					
Donations					
Fairmt Hsp.	50,000	50,000	50,000	50,000	50,000
TOTAL	3,589,086	3,706,462	4,531,377	4,145,354	4,693,896

TABLE 25 - ECFPD EXPENDITURES 1986/87 TO 1990/91

	1986/87	1987/88	1988/89	1989/90	1990/91
Personnel	2,833,973	3,281,944	3,158,036	3,986,841	4,023,981
Non-Pers.	309,794	347,995	463,696	646,133	737,881
Cap. Improv.	22,119	395,295	134,208	431,537	316,366
TOTAL	3,184,293	4,048,557	3,783,274	5,101,354	5,422,366

The ECFPD received \$11,344 in first responder reimbursements from the county EMS program. (See Appendix L)

The ECFPD receives \$50,000 per year from the county for fire suppression services which are provided to the Fairmont Hospital, Juvenile Hall, Villa Fairmont and a new medical facility which is under construction.

Personnel Salaries and Benefits:

<u>RANK</u>	<u>MONTHLY SALARY</u>
Chief	\$7,879
Deputy Chief	6,683
Battalion Chief	5,589
Deputy Fire Marshal I	4,891
Captain	4,113
Engineer	3,671
Firefighter	3,430
Secretary	2,871

Three engineers had been assigned to the Fire Prevention Bureau and received an additional five percent salary increase. On May 15, 1991 the district will add a 40-hour/week deputy fire marshal to replace these positions in the Fire Prevention Program. The three personnel will be reassigned to the suppression division to maintain minimum staffing and to reduce overtime costs.

Personnel who have received a Fire Science certificate of achievement and issued by Chabot College or an AA in Fire Science receive an additional \$30/month.

Personnel are required to be certified as EMT-Ds and receive a 2.5 percent salary increase. This amount covers EMT certification, early defibrillation certification and future EMS training and certification levels.

DISTRICT FACILITIES

The district operates three fire stations. The locations of these stations are shown on Maps 2 and 4. A detailed description of the facilities is provided in Tables 27 to 29.

The administrative offices and the Fire Prevention Bureau are located at the Station 1 site. The administrative offices are located in mobile office modules behind Station 2.

Station 1 and 2 are considered to be in good condition. Station 3 is in poor condition. The roof leaks and the building has extensive dry rot damage to the structure. An earthquake analysis study conducted by the district in conjunction with the county and Federal Emergency Management Agency (FEMA) recommended that the structure be demolished.

Station 1 and 2 have emergency generators. Only Station 2 has fuel storage with a 1,000-gallon tank of gasoline and a 1,000-gallon tank of diesel fuel. A manual inventory of station furnishings and equipment is maintained.

TABLE 26 - FIRE STATION SUMMARY

	STATION 1	STATION 2	STATION 3
Year Constructed	1945	1975	1950
Lot Size (sq. ft.)		35,190	5,712
Bldg Area(sq.ft.)	3,757	5,880	1,474
Classroom (sq.ft.)	550	0	0
Admin. Office Area	255	0	0
Appts. Room (sq.ft.)	1,436	3,375	698
Drive Thru	no	yes	no
Fuel Tank: Gaso.	no	1,000	no
Generator	no	yes	no
Spec.Equip/Facil.	Admin. Fire Prev. Bureau	Air and Oxygen Cascade	County Trainig Aids Library

The district owns Stations 2 and 3. Station 1's property and structures are leased from the San Lorenzo Village Homeowners Association. The current cost is \$1,200 per year with an annual cost increase of \$50 per year.

FIRE DEPARTMENT FACILITY DESCRIPTION

Fire Station: Number 1 : Name Eden Consolidated Fire Department

Location: 427 Paseo Grande, San Lorenzo, CA 94580

Structure owned by: San Lorenzo Village Homeowners Assn. Property owned by: San Lorenzo Village Homeowners Assn.

Type construction VN Year constructed 1945

Lot size 7,150 sq. ft. Building size: sq. ft. 3757

Apparatus room: No. bays 3 sq. ft. 1436

Apparatus room capacity: engines 3, trucks 0, other 0

Apparatus door height 10 ft. width 12 ft.

Is apparatus room "drive through"? (Yes) (No) X

Shop area's sq.ft. 0 Storage area: sq. ft. 100

Living quarters: 278 sq. ft., Dormitory: 609 sq. ft.,

Individual rooms 732 sq. ft., Bath rooms 161 sq. ft.

Fuel tank 0 gallons gasoline; 0 gallons diesel

o If fuel is not at station, where is refueling available?

STA. 2 1430 164th Ave.

Emergency generator (Yes) X (No) _____

o Generator will supply power to Full Station

Classroom - meeting area 550 sq. ft.

Special equipment and/or facilities Houses Fire Prevention *

Description of condition including needed repairs/alterations:

Administrative offices: Location: _____

* Total area administrative 255 sq. ft. (including storage)

Total area fire prevention 300 sq. ft.

Conference room _____ sq. ft.

FIRE DEPARTMENT FACILITY DESCRIPTION

Fire Station: Number 2: Name Eden Consolidated Fire Department
Location: 1430 164th Ave., San Leandro, CA 94578
Structure owned by: ECFPD Property owned by: ECFPD
Type construction Metal 102x345 Year constructed 1975
Lot size 35,190 sq. ft. Building Size: sq. ft. 5880
Apparatus room: No. bays 3 sq. ft. 3375
Apparatus room capacity: engines 4, trucks 1, other B/C suburban
Apparatus door height 14 ft. width 14 ft.
Is apparatus room "drive through"? (Yes) X (No) _____
Shop area's sq.ft. 0 Storage area: sq. ft. 216
Living quarters: 504 sq. ft., Dormitory: 824 sq. ft.,
Individual rooms 706 sq. ft., Bath rooms 253 sq. ft.
Fuel tank 1,000 gallons gasoline; 1,000 gallons diesel
o If fuel is not at station, where is refueling available?

Emergency generator (Yes) X (No) _____
o Generator will supply power to _____

Classroom - meeting area 0 sq. ft.
Special equipment and/or facilities Air and Oxygen Cascades

Description of condition including needed repairs/alterations:
Building in good shape. Need to extend storage area.

Administrative offices: Location: 1426 164th
Total area administrative _____ sq. ft. (including storage)
Total area fire prevention _____ sq. ft.
Conference room _____ sq. ft.

APPARATUS AND VEHICLES

The district operates six engines, one patrol unit, one rescue vehicle, four staff cars and one utility van. A manual inventory system for on-board equipment is maintained. All safety equipment except breathing apparatus meet OSHA requirements. The breathing air equipment is a low pressure system which is serviced by a manifold system.

The district plans to purchase new high pressure breathing apparatus in 1991/92.

The pressure cascade refilling system will be replaced by a new high pressure compressor as a component of the new heavy rescue vehicle currently on order.

A summary of the fire apparatus is contained in Table 30. A detailed description of each apparatus is contained in Tables 31 to 37.

TABLE 30 - SUMMARY OF FIRE APPARATUS

Number	Location Station	Date Purchased	Scheduled Replacement Date	Mileage
E-1	1	1981	1996	39,500
E-2	2	1988	2006	14,000
E-22	2	1988	2006	12,000
E-3	3	1973	1992	62,000
E-5	1	1970	1992	46,500
E-6	(1)	1970	1992	64,500
Rescue	1	1972	n/a	
Patrol	2	1983	n/a	
Car 1		1982	n/a	35,400
Car 2		1985	n/a	26,300
Car 3		1987	n/a	61,600
Car 4		1985	n/a	50,400
Utility	1	1989	n/a	7,700

(1) Fairmont Hospital

Apparatus Replacement Policy and Funding

The district apparatus replacement program consists of a policy to recommend the replacement of one engine every three years. This recommendation has been made to the County Administrators office for funding through SDAF.

The district is currently in the process of purchasing three apparatus which will be delivered in 1991.

- o An engine with a 55-foot aerial ladder. This unit will replace engine 22. Engine 22 will replace Engine 3 which will be placed in reserve.
- o An engine will replace Engine 1 which will also be placed in reserve.
- o A heavy rescue unit which will have a high pressure breathing air compressor system which will meet OSHA requirements.

When the three new apparatus are placed in service E-5 and E-6 will be sold. A replacement policy for staff cars has not been developed.

Preventive Maintenance

The six engines are scheduled for two preventive maintenance inspections per year, a semi-annual and an annual inspection. Appendix I contains a description of the six and twelve month maintenance program. The apparatus is generally out-of-service for three days for annual maintenance and two days for semi-annual maintenance. These maintenance services are provided by a private Contractor. (See Appendix I)

The average costs of preventive maintenance inspections by the private contractor is \$700 for semi-annual and \$1,700 for annual. The autos, the utility and the patrol unit receive semi-annual oil changes and annual tune-ups. These services are provided by private automotive maintenance firms.

Schedules for daily, weekly and monthly vehicle maintenance by operators have been developed. Records of this maintenance is completed by operators. A procedure for annual pump tests has not been adopted.

Apparatus maintenance records are manually maintained and data is not readily available for program analysis and management.

Tables 31A and 31B identify the down-time for maintenance and the cost of maintenance for district apparatus:

TABLE 31A - APPARATUS DOWN-TIME (DAYS)

	E-1	E-2	E-22	E-3	E-5	E-6
1989/90	104	18	12	10	12	2
1988/89	7	10	14	15	10	9
1987/88	16	8	11	10	8	2
1986/87	5			8	10	5
1985/86	6					
ANNUAL AV.	28	12	12	11	10	5

TABLE 31B - APPARATUS MAINTENANCE COSTS

	E-1	E-2	E-22	E-3	E-5	E-6
1989/90	\$16,000	\$5,000	\$3,700	\$ 1,050	\$ 4,860	\$ 500
1988/89	2,400	3,750	4,150	11,130	3,170,	5,750
1987/88	5,700	1,090	2,000	4,150	1,200	500
1986/87	1,345			1,215	3,050	700
1985/86	3,900					
TOTAL	\$29,345	\$9,840	\$9,850	\$17,545	\$12.280	\$7,450
ANNUAL AV.	\$ 5,869	\$3,280	\$3,284	\$ 4,386	\$ 3,070	\$1,860

All district apparatus can be operated with a Class B license. The California Vehicle Code was amended to require firefighters who operate certain fire apparatus to maintain Class A or Class B licensees. Eleven personnel have Class B licenses. See the section on training for a detailed description of training and licensing requirements.

A detailed description of all apparatus is defined in Tables 38 to 43.

TABLE 32
APPARATUS INVENTORY

Apparatus number E1 Inventory number: E-760931 Model/yr. 1981 Custom
Type: (engine, truck, etc.) Engine Milage 39,240
Manufacturer: Van Pelt
Date purchased 1981 Yrs. 1st line 9 Yrs. reserve ---
Scheduled replacement date 1996
Engine: Make Detroit Diesel Model 8V92TAC gas () diesel (☒)
Transmission: Make Allison Model HT-740 Man. () Auto (☒)
Pump: Make Hale Model _____ Rated Cap. 1500 gpm.
Primer: Type Electric single stage Hale Pressure
Rotary Vien Press. relief valve: Type Relief Valve
Aerial/Snorkel/Squirt: Make _____ Model _____; _____ ft.
Brakes: Front; Disc (), Shoe (☒) Size _____ in.
Rear; Disc (), Shoe (☒) Size _____ in.
System; Air (☒), Hydrovac ()
Emergency brake; Type Maxibrakes
Steering: Power assist - yes (☒) no ()
Water Tank: Capacity 500 gal., Const: steel (☒), fiberglass (), other
Internally treated with Bitumatic Date last treated Not On A
Routine Basis
Enclosed cab, yes (☒) no (); No. seats w/seat belts 5
Personnel ride rear tail board, yes () no (☒), if yes, w/safety belts ()
Foam: Proportioner, yes (), no (☒); tank _____ gal.
Wetting agent: Proportioner, yes (), no (); tank _____ gal.
Fire Hose: 4 or 5" 800 ft.; 3" 800 ft.; 2 1/2" --- ft.; 1 3/4" 200 ft
1 1/2" 150 ft.; 3/4" _____ ft.; Suction hose 15 ft. _____ in
Preconnects: 2 - 150 ft. 1 3/4 in.; 2 - 300 ft. 3/4 in.
Master Stream Appl.: Capacity 1200 gpm.; Preconnected yes () no (☒)
Breathing Apparatus: No. 4; Type Survivair; Spare Bottles 6
Special equipment: _____

Mobile Radio: Frequencies 154.07 154.280 154.2350 154.2650 154.3550 153.7850 151.70
151.250

Portable Radios: No. 1; Frequencies 154.07 154.280 _____

Maintenance history:

Pump test: Date of last test _____; Results _____

Aerial ladder/snorkel: Date last test _____ Results _____

	89/90	88/89	87/88	86/87	85/86	TOTAL
--	-------	-------	-------	-------	-------	-------

Downtime (total hrs)	_____	_____	_____	_____	_____	_____
----------------------	-------	-------	-------	-------	-------	-------

Maintenance (\$)	_____	_____	_____	_____	_____	_____
------------------	-------	-------	-------	-------	-------	-------

List on a all major repairs within the last five years:

Date

Repair

Describe major delays in obtaining repair parts:

APPARATUS INVENTORY

58

Mobile Radio: Frequencies 154.07 154.280 154.2350 154.2650 154.3550 153.7850 151.2950 C

Portable Radios: No. 1; Frequencies 154.280 154.07 _____

Maintenance history:

Pump test: Date of last test _____; Results _____

Aerial ladder/snorkel: Date last test _____ Results _____

89/90	88/89	87/88	86/87	85/86	TOTAL
-------	-------	-------	-------	-------	-------

Downtime (total hrs)	_____	_____	_____	_____	_____
----------------------	-------	-------	-------	-------	-------

Maintenance (\$)	_____	_____	_____	_____	_____
------------------	-------	-------	-------	-------	-------

List on a all major repairs within the last five years:

Date

Repair

Describe major delays in obtaining repair parts:

280

APPARATUS INVENTORY

Apparatus number E-22 Inventory number: E-101563 Model/yr. '88
Type: (engine, truck, etc.) Engine Milage 11802
Manufacturer: Beck Custom
Date purchased 3-10-88 Yrs. 1st line 2 Yrs. reserve --
Scheduled replacement date 2006
Engine: Make Detroit Diesel Model 8V92TA gas () diesel (X)
Transmission: Make Allison Model HT 741 Man. () Auto (X)
Pump: Make Darley Champion Model N75089 Rated Cap. 1500 gpm.
Primer: Type Electric Rotary Press. relief valve: Type Darley Pressure
Vein Relief Valve
Aerial/Snorkel/Squirt: Make _____ Model _____; _____ ft.
Brakes: Front; Disc (X), Shoe () Size _____ in.
Rear; Disc (X), Shoe () Size _____ in.
System; Air (X), Hydrovac ()
Emergency brake; Type Maxibrake
Steering: Power assist - yes (X) no ()
Water Tank: Capacity 500 gal., Const: stainless steel (X), fiberglass (), other
Internally treated with _____ Date last treated _____
Enclosed cab, yes () no (X); No. seats w/seat belts 5
Personnel ride rear tail board, yes (X) no (), if yes, w/safety belts ()
Foam: Proportioner, yes (), no (X); tank _____ gal.
Wetting agent: Proportioner, yes (), no (X); tank _____ gal.
Fire Hose: 4 or 5" 1050 ft.; 3" 1000 ft.; 2 1/2" -- ft.; 1 3/4" 200 ft.
1 1/2" 100 ft.; 3/4" -- ft.; Suction hose 15 ft. 4 1/2 in.
1 " 200 ft.
Preconnects: 300 ft. 1 3/4 in.; 300 ft. 3/4 in. 10 ft. 1 in.
Master Stream Appl.: Capacity 1200 gpm.; Preconn ed yes (X) no ()
Breathing Apparatus: No. 4; Type Survivor; Spare Bottles 6
Special equipment:

Mobile Radio: Frequencies 154.07, 154.280 154.2350 154.2650 154.3550 153.7850 151.0000
151.2500

Portable Radios: No. 1; Frequencies: 154.07 154.280 _____

Maintenance history:

Pump test: Date of last test _____; Results _____

Aerial ladder/snorkel: Date last test _____ Results _____

	89/90	88/89	87/88	86/87	85/86	TOTAL
Downtime (total hrs)	_____	_____	_____	_____	_____	_____
Maintenance (\$)	_____	_____	_____	_____	_____	_____

List on a all major repairs within the last five years:

Date	Repair
------	--------

Describe major delays in obtaining repair parts:

Mobile Radio: Frequencies 154.07 154.280 154.2650 154.3550 153.7850 151.4450 151.5
151.55

Portable Radios: No. 1; Frequencies: 154.07 154.280 _____

Maintenance history:

Pump test: Date of last test _____; Results _____

Aerial ladder/snorkel: Date last test _____ Results _____

	89/90	88/89	87/88	86/87	85/86	TOTAL
--	-------	-------	-------	-------	-------	-------

Downtime (total hrs)	_____	_____	_____	_____	_____	_____
----------------------	-------	-------	-------	-------	-------	-------

Maintenance (\$)	_____	_____	_____	_____	_____	_____
------------------	-------	-------	-------	-------	-------	-------

List on a all major repairs within the last five years:

Date

Repair

Describe major delays in obtaining repair parts:

TABLE 36

APPARATUS INVENTORY

Apparatus number E5 Inventory number: E-559897 Model/yr. 1970 Custom

Type: (engine, truck, etc.) Engine Milage 46,344

Manufacturer: Van Pelt

Date purchased 10-16-70 Yrs. 1st line 11 Yrs. reserve 9

Scheduled replacement date _____

Engine: Make Detroit Diesel Model 8V71N gas () diesel (X)

Transmission: Make Allsion Model HT-70 Man. () Auto (X)

Pump: Make Hale Model HQ-15 Rated Cap. 1500 gpm.
Air Actuated Hale Pressure

Primer: Type Rotary Gear Press. relief valve: Type Relief Valve

Aerial/Snorkel/Squirt: Make -- Model --; -- ft.

Brakes: Front; Disc (), Shoe (X) Size _____ in. } Drum

Rear; Disc (), Shoe (X) Size _____ in. }

System; Air (X), Hydrovac ()

Emergency brake; Type Maxi brake

Steering: Power assist - yes () no ()

Water Tank: Capacity 600 gal., Const: steel (X), fiberglass (), other
Internally treated with Bitumastic Date last treated Not On A
Routine Basis

Enclosed cab, yes (X) no (); No. seats w/seat belts 5
Personnel ride rear tail board, yes () no (X), if yes, w/safety belts ()

Foam: Proportioner, yes (), no (X); tank _____ gal.

Wetting agent: Proportioner, yes (), no (); tank _____ gal.

Fire Hose: 4 or 5" -- ft.; 3" 2000 ft.; 2 1/2" --- ft.; 1 3/4" 5 ft

* Verify 1 1/2" 200 ft.; 3/4" 600 ft.; Suction hose 15 ft. -- in

Preconnects: 300 ft. 1 3/4 in.; 600 ft. 3/4 in.

Master Stream Appl.: Capacity NO gpm.; Preconnected yes () no (X)

Breathing Apparatus: No. _____; Type Survivair; Spare Bottles _____

Special equipment: _____

Mobile Radio: Frequencies 154.07 154.280 154.235 154.2650 154.3550 153.7850 151.4450
151.295

Portable Radios: No. 1; Frequencies: 154.07 154.280 _____

Maintenance history:

Pump test: Date of last test _____; Results _____

Aerial ladder/snorkel: Date last test _____ Results _____

	89/90	88/89	87/88	86/87	85/86	TOTAL
Downtime (total hrs)	_____	_____	_____	_____	_____	_____
Maintenance (\$)	_____	_____	_____	_____	_____	_____

List on a all major repairs within the last five years:

Date

Repair

Describe major delays in obtaining repair parts:

TABLE 37

Apparatus number E6 Inventory number: E-560453 Model/yr. '70 Custom
Type: (engine, truck, etc.) Engine Milage 64,500
Manufacturer: Van Pelt
Date purchased 1970 Yrs. 1st line 18 Yrs. reserve 2
Scheduled replacement date 1992
Engine: Make Detroit Diesel Model 8V71N gas () diesel (☒)
Transmission: Make Allsion Model HT-70 Man. () Auto (☒)
Pump: Make Hale Model HQ-1500 Rated Cap. 1500 gpm.
Primer: Type Air Actuated Rotary Gear Press. relief valve: Type Hale Pressure Relief Valve
Aerial/Snorkel/Squirt: Make _____ Model _____; _____ ft.
Brakes: Front; Disc (), Shoe (☒) Size _____ in.
Rear; Disc (), Shoe (☒) Size _____ in.
System; Air (☒), Hydrovac ()
Emergency brake; Type Maxibrake
Steering: Power assist - yes (☒) no ()
Water Tank: Capacity 400 gal., Const: steel (☒), fiberglass (), other
Internally treated with Bitumastic Date last treated Not On A
Routine Basis
Enclosed cab, yes () no (☒); No. seats w/seat belts _____
Personnel ride rear tail board, yes () no (☒), if yes, w/safety belts ()
Foam: Proportioner, yes (), no (☒); tank _____ gal.
Wetting agent: Proportioner, yes (☒), no (); tank _____ gal.
Fire Hose: 4 or 5" _____ ft.; 3" 1000 ft.; 2 1/2" 1000 ft.; 1 3/4" _____ ft.
1 1/2" 200 ft.; 3/4" _____ ft.; Suction hose 15 ft. 4 1/2 in.
Preconnects: 300 ft. 1 1/2 in.; 600 ft. 3/4 in.
Master Stream Appl.: Capacity NA gpm.; Preconnected yes () no (☒)
Breathing Apparatus: No. 4; Type Survivair; Spare Bottles 2
Special equipment: _____

Mobile Radio: Frequencies _____

Portable Radios: No. _____; Frequencies _____

Maintenance history:

Pump test: Date of last test _____; Results _____

Aerial ladder/snorkel: Date last test _____ Results _____

	89/90	88/89	87/88	86/87	85/86	TOTAL
--	-------	-------	-------	-------	-------	-------

Downtime (total hrs)	_____	_____	_____	_____	_____	_____
----------------------	-------	-------	-------	-------	-------	-------

Maintenance (\$)	_____	_____	_____	_____	_____	_____
------------------	-------	-------	-------	-------	-------	-------

List on a all major repairs within the last five years:

Date

Repair

Describe major delays in obtaining repair parts:

Both E2 and E22 (Becks) were, "Out of Service" during first 2 years of service,
(87/88) most of the time.

Fire Prevention

The ECFPD fire prevention program consists of fire code enforcement, public fire safety education and fire cause investigation. Fire code enforcement encompasses new construction plan review and inspections. It also includes periodic reinspection of existing occupancies to maintain code compliance.

The district enforces the provisions of the State Health and Safety Code (Title 19 of the California Administrative Code) and the fire code of Alameda county. This code is based upon the 1985 Uniform Fire Code (See Appendix A). The county has adopted an automatic fire sprinkler ordinance which exceeds the minimal requirements of the Uniform Building Code. This sprinkler ordinance is enforced by the ECFPD. (See Appendix B)

The County Planning Department provides copies of parcel maps, tract maps, site plans and zoning changes for review by the ECFPD.

The County Building Department provides copies of construction plans and specifications for residential and commercial occupancies for review and approval related to fire code compliance at their facilities in Hayward. The Building Department will not issue building permits or certificates of occupancy when notified by the fire district that code compliance problems exist.

It has been estimated that 70 new construction plans are reviewed each year. It is also estimated that plans reviews consumes one-half man-year.

Annual licensing inspections of health care facilities are conducted for day care centers, care homes, nursing homes and hospitals. However, the Fairmont Hospital which is within the district is inspected by the State Fire Marshal.

Occupancies which present a high fire hazard of life risk are inspected by the fire prevention bureau. Hazards identified by the engine companies are referred to the fire prevention when compliance cannot be attained after a second reinspection.

The fire prevention bureau was originally staffed by a fire marshal and a fire inspector both working a 40-hour week shift. In 1980, a reorganization occurred in which the fire inspector position was abolished and replaced with three fire engineers who are assigned to the three suppression division shifts. These personnel performed fire prevention duties during their 24-hour shift. This program is now considered to be less effective than one full-time inspector. The district has recommended that a fire inspector be hired on a 40-hour week basis and that the engineers be reassigned to suppression division duties.

It is projected that this reorganization will produce more effective and efficient code enforcement. The reassignment of the engineers to the suppression division will reduce the overtime costs of the suppression division.

Company Inspections

Inspections to maintain code compliance in existing commercial, multi-family and small public assembly occupancies are conducted by the engine companies. The current inspection frequency for public assembly and commercial occupancies is 18 months. An organized training program and continuing skill maintenance have not been provided to suppression division personnel.

The desired inspection frequency established for existing occupancies is:

- o Public Assembly (A-1 to 4) 18 Months
- o Multi-family (R-1) On request
- o Commercial (B-1,2,3,4) 18 Months
- o Industrial (H-1 to 7) 12 Months
- o Health Care (I-1,2,3) 12 Months
- o Schools (E-1,2,3) 12 Months

The inspection workload in existing occupancies is listed in Table 38.

TABLE 38 - CURRENT INSPECTION WORKLOAD

	FPB	ENGINE COMPANY
Hotels/Apts Structures (R-1) 70	70	414
Hotels/Apts (Units) (R-1)	Inspections not scheduled	
Commercial (B-2) Occupancies		1,000
Health Care (I)	67	
Public Assembly (I)		43
Schools (E)		37
Government Buildings (B-2)		10
Industrial/High Hazard (H)	6	
Weed Abatement Inspections	120	
TOTAL	263	1,504

Each engine company is currently assigned six inspections per month. which would produce 645 inspections per year or 43% of the required inspections.

There are 219 structures in the district with automatic sprinkler systems which require periodic testing and maintenance. The activities performed by the district to assure that the reliability of these systems is maintained consist of plan review, inspection and testing at the time of construction. Educational and institutional occupancy sprinkler systems are tested annually. Systems in other occupancies do not receive periodic inspections.

Occupancies with sprinkler systems have been notified that periodic testing and preventive maintenance are required. However, periodic inspections are not regularly scheduled for all occupancies.

One of the major responsibilities of the proposed fire inspector's position will be to develop and maintain code enforcement skills of the suppression division.

The projected fire prevention workload for the period of 1990 to 2000 is listed in Table 39.

TABLE 39 - PROJECTED FIRE PREVENTION WORKLOAD

	1990	1995	2000
Plans Reviews	70 (1)		
Hotels/Apts (R-1)	276		
Commercial (B-2)	666		
Health Care (I)	67		
Public Assembly (A)	29		
Schools (E)	25		
Government Bldgs. (B-2)	7		
Industrial/High Hazard (H)	6		
Weed Abatement	120		

(1) Based upon 1989 activity data

The inspections of existing occupancies which have been conducted over the past five years are listed in Table 40.

TABLE 40 - INSPECTIONS OF EXISTING OCCUPANCIES 1985 TO 1989

	1985	1986	1987	1988	1989
o Public Assembly (A)	45	48	45	45	45
o Hotel/Apts. (R-1)	18				26
o Commercial (B)					780
o Industrial (H)	n/a				
o Health Care (I)	55	60	60	60	60
o Educational (E)	37	37	37	37	37

Citation Program

A citation program is to be developed in 1991.

Permit Fees and Fees for Service

A system of permit fees and fire prevention service fees have not been developed. Being developed (permit fees and plan rave.

Weed Abatement

One inspector/engineer is assigned to weed abatement. The bureau is responsible for issuing abatement notices pertaining to weeds, growth, and litter where such creates a fire hazard. The process involves the identification of the hazards, mailing of notification, re-inspection of the property, issuance of a second "Notice of Violation," holding of an abatement hearing, posting of the property, and the ordering of abatement and assessing cost of same to the tax rolls. An administration fee of \$116.33 per parcel is levied. The weed abatement season begins in February and is usually completed in late August. In 1987, Eden Fire issued 370 courtesy notices, 120 notices of violation, and had 4 properties abated.

In 1991, 322 notices were distributed. This program is considered to have minimal impact upon fire protection and has become primarily a program to improve esthetics of the district.

Fire Works

The county has banned the sale and use of legal fireworks. All cities except Dublin and Newark have also banned legal fire works.

Fire Safety Education

A shift captain has been assigned the responsibility of developing fire safety education. Fire Safety education activities include programs designed for students in pre-school and adults. The adult programs include fire prevention, first aid and emergency preparedness for residents and businesses. Records of safety education activities are not maintained.

Fire Prevention Program Records

The fire prevention program records are maintained through a manual system. Data are not readily available to plan, evaluate or manage the fire prevention program. Periodic activity reports are not prepared.

Fire Investigation

Fire cause is determined by the officer in charge of an incident, usually the first arriving company officer. The fire prevention bureau will assume responsibility for the fire cause determination and investigation at all major dollar loss fires, any fire injury or death and suspicious fires. The number in incendiary fires increased 115 percent over 1989 in 1990.

The number of incendiary fire incidents and the results of incendiary/suspicious fire investigations are listed in Table 41.

TABLE 41 ARSON/SUSPICIOUS FIRE INVESTIGATION

	Incendiary Fires	Arrests	Convictions
1990	69	0	0
1989	32	2	2
1988	33	4	2
1987	20	4	2
1986	40	5	3

ECFPD is a participant in the Alameda County Arson Fire Investigation Team (See Appendix J).

HAZARDOUS MATERIALS

The Alameda County Environmental Health Department is the responsible agency for hazardous materials controls.

The district performs no HAZ MAT control functions other than the enforcement of the standard fire code requirements.

The County Health Department has not provided the district with copies of Haz Mat business plans (HMMPs) or lists of HAZ MATS at those facilities. The Haz Mat division is currently purchasing computers and software which will be provided to fire departments through which the division will provide HMMPs to fire protection agencies throughout the county.

The Haz Mat Division inspects existing facilities on a complaint basis, since it lacks sufficient personnel to conduct scheduled inspections.

The County Health Department maintains a staffed HAZ MAT vehicle. However, response times are excessive frequently to one or two hours. The unit usually responds with one person who is limited to chemical identification. The personnel are trained to the First Responder Operations Level (40 hour course) although many personnel have extensive chemical education and degrees. The unit is not staffed or equipped to provide mitigating functions.

A HAZ MAT response team is being jointly developed by Hayward, Fremont and Union City fire departments. This unit will be staffed with personnel qualified to take mitigating actions (certified Haz Mat Technicians). A fee will be charged when this unit provides services outside the three sponsoring jurisdictions. This fee can be recovered from a person or agency responsible for a HAZ MAT incident if that person or agency can be identified. If not, the fire district requesting assistance will be liable for the service fees.

The district jointly inspects underground flammable liquid tank removals with the County Health Department. The district enforces Uniform Fire Code requirements for underground tank installations.

Incident Activities

Incident activities have increased approximately 25 percent between 1985 and 1990. During this period EMS calls increased by 23 percent and continue to account for approximately 50 percent of total incident activity. The rate of fire incidents remain relatively constant. Increased activities are being experienced in accidental alarms and HAZ MAT incidents. No fire works caused incidents have occurred in the past two years. (See Table 42)

The ECFPD is an active participant in the Alameda County mutual aid plan. An automatic aid agreement exists between ECFPD and Castro Valley FPD. The area protected by the mutual aid agreement is described in Appendix M.

TABLE 42 - ECFPD INCIDENTS 1985 TO 1989

<u>FIRE INCIDENTS</u>	1985	1986	1987	1988	1989	1990
Single Family Dwel..	81	63	105	58	66	33
Apartments	28	27	21	27	25	29
Businesses	12	17	13	9	11	8
Institutional	1	13	3	2	9	4
Vehicle	107	89	99	84	110	70
Outside Structure	3	2	18	12	3	3
Grass & Brush	50	42	52	53	41	57
Other	87	70	32	105	39	114
TOTAL	369	323	343	350	304	318
<u>NON-FIRE INCIDENTS</u>						
Emergency Medical	2151	2412	2661	2614	2912	2638
Auto Accident/Standby	285	257	267	281	292	325
Contracted Properties	27	20	4	5	71	52
Mutual Aid	7	12	49	17	55	21
HAZ MATS	N/A	39	35	38	22	54
Investigations/Gas	137	148	157	117	193	168
False Alarms/Malicious	40	21	14	23	21	16
Accidental Alarm	87	64	124	30	133	137
Alarm Malfunction	21	23	0	0	0	0
Non-emergency services	275	287	255	378	340	344
NON-FIRE TOTAL	3030	3283	3566	3503	4039	3755
TOTAL ALL INCIDENTS	3399	3566	3909	3864	4662	4263

INCENDIARY AND FIRE WORKS FIRE CAUSE:

Incendiary	17	40	20	33	32	69
Fireworks	8	9	15	4	0	0

Incident Response Policies

The response policy of the district is outlined in Table 43. This table identifies the personnel and apparatus which are initially dispatched to each type of incident.

TABLE 43 - INCIDENT RESPONSE POLICIES

<u>Incident Type</u>	<u>B/C</u>	<u>Engine</u>	<u>Patrol</u>	<u>Personnel</u>
EMS		1		3
Structure	1	3		10
Auto Fire		1		3
Brush/Grass		2	1	9
HAZ MAT		1		3

Suppression Division Staffing:

The district policy is to staff three engines with a minimum of three personnel. One battalion chief position is also staffed at all times. Response time standards for the first due engine and the full first alarm assignment have not been established.

Records of response times to incidents are not available. However, average response times have been identified to six locations within the district (See Table 44).

TABLE 44 - AVERAGE RESPONSE TIMES TO SIX LOCATION IN ECFPD

Station 1 to 2488 Bauman Avenue

1st in	4:30
2nd in	7:16
2nd alarm	7:14

Station 1 Via Sarita/Via Carmen

1st in	4:20
2nd in	5:35
2nd alarm	8:07

Station 1 to Marin Ave/Happpyland Ave.

1st in	4:28
2nd in	3:19
2nd alarm	6:58

Station 2 to Eden Hospital

1st in(E2&E22)	3:41	Joint Response
2nd in (E3)	7:02	

Station 2 to Howe Avenue

1st in	4:45
2nd in	6:47
2nd alarm	6:48

Station 2 to 15249 Dermody

1st in	3:11
2nd in	5:09
2nd alarm	1:45

Station 3 to College/Usher

1st in	4:05
2nd in	3:38
2nd alarm	1:45

Station 3 to Ash/Foothill Blvd.

1st in	3:12
2nd in	3:35
2nd alarm	6:22

Mutual Aid and Automatic Aid

The ECFPD participates in the Alameda County Mutual Aid Plan and the South Zone Mutual Aid program in conjunction with CVFPD, Fairview FPD, the Cities of Fremont, Union City, Newark and Hayward.

An automatic aid agreement has been in effect between ECFPD and CVFPD since 1986. (See Appendix M) Under this agreement both districts provide resources for the initial response to a specified area which encompasses both districts. (See Map in Appendix M)

Communications and Dispatch

Dispatching services are provided by the Alameda County Communications Department through their dispatch center located at 150 Avenue in San Leandro.

Dispatch information is provided to the department via Computer with voice backup.

The district operates on three radio frequencies:

- o 154.235 Twin Valley mutual aid channel
- o 154.070 (Red) county fire channel
- o 154.280 (White) the statewide mutual aid fire frequency

Each vehicle has a mobile radio and a portable radio assigned. The district can communicate directly with all other fire agencies in the county, except those which have implemented the 800 mhz. radio systems. (See Appendix K - Communications)

Training

The C Shift battalion chief coordinates the training program.

A six-week basic training program is provided for all entry level firefighters.

Suppression division skill maintenance training is provided by the company officers. Training is based upon a monthly training schedule prepared by the training officer.

A program to develop and maintain the fire prevention skills of engine company personnel has not been developed.

The required 24-hour Haz Mat first responder (Operational) training course has not been provided to suppression division personnel. A captain has been assigned to conduct this training.

All department engines can be operated with a Class B non-commercial restricted driver's license as required by the state effective July 1, 1990. Eleven personnel have obtained Class B licenses.

An apparatus operator training program has been developed to provide the training, driver's test and documentation necessary for personnel to obtain Class B licenses. Three department personnel have been certified to conduct the required training. The district participates in the DMV's Pull Notice program and therefore receives annual reports for DMV regarding driver status, i.e., traffic citations, license expirations or suspensions, etc.

Proficiency standards for fire suppression operations have not been established.

A physical fitness program has been developed. Personnel devote 1.5 hours per shift to the program prepared by Run By Sportcare of Pleasanton. Minimum required physical fitness standards and testing have been established and are administered by the district.

A prefire planning program has not been developed and implemented.

A manual training record system is maintained. Data needed to evaluate the scope and quality of the training program are not available.

Joint training is conducted with San Leandro at the San Leandro training center. Weekly drills are also scheduled with Castro Valley and San Leandro. The South Zone mutual aid agencies also conduct scheduled joint training sessions. (See Appendix M)

EMS Training

All personnel are required to maintain EMT-ID certification. New employees are required to possess EMT-I certification as a condition of employment. The district provides the training required for recertification. Qualified instructors are maintained by the district to conduct recertification training. A quality assurance program is provided by a private contractor.

Pre-employment Requirements

Entry level firefighters are required to possess Firefighter I certification in addition to EMT-I certification as a condition of employment.

Pre-promotional Requirements

Pre-promotional requirements have not been adopted but are in the process of joint development by administration and the union.

CASTRO VALLEY FIRE PROTECTION DISTRICT

The Castro Valley Fire Protection District is a dependent district with a Board of Fire Commissioners, appointed by the Alameda County Board of Supervisors. The district encompasses 16.5 square miles and is bounded by the Eden Consolidated Fire Protection District, the Fairview Fire Protection District, the City of Hayward and unincorporated lands protected by the California Department of forestry and the East Bay Regional Park District (See Map 5).

The district is bounded on the south side by a major interstate freeway (580) which presents significant service demands related to emergency medical, rescue and HAZ MAT incidents.

The population of the district is currently estimated to be 49,300 and is projected to increase to 49,500 by 1995 and 52,300 by 2000(1) within the current boundaries.

There have been previous considerations of the annexation of the unincorporated areas to the north-east which are currently protected by CDF and East Bay Regional Park District (EBRPD). This area currently contains 514 dwelling units and a population of 1,232 (2). This area is currently served by CDF/Sunol or the EBRPD.

Some residents in the areas outside the district to the north-east have expressed concerns about excessive response times of fire units into their areas. CVFPD is currently providing first response services to these areas until a solution is developed as part of this study. Further development in these areas (Crow, Cull, Eden and Palomares Canyons) is anticipated over the next ten years. (See Map 1)

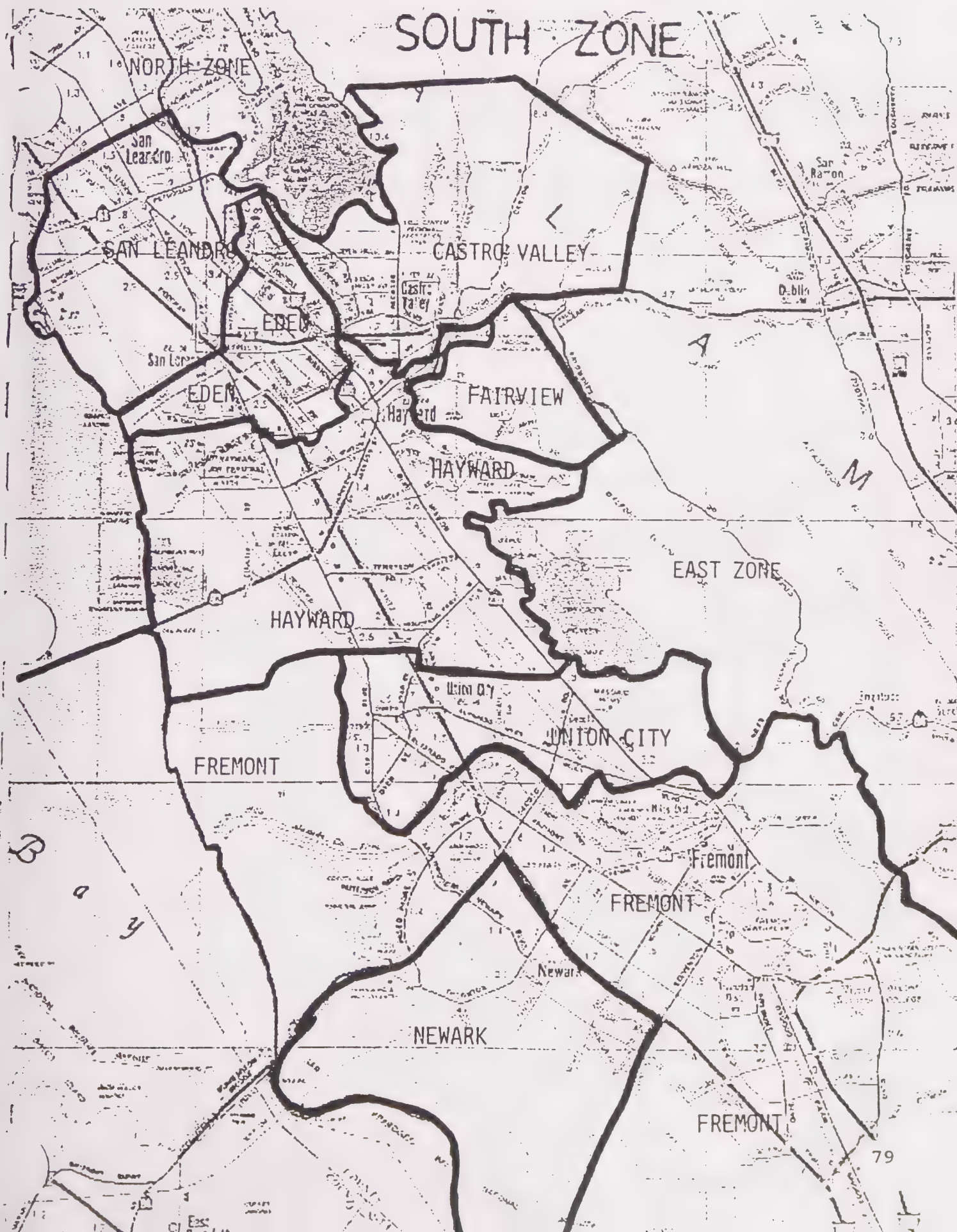
The areas protected by the district are unincorporated county lands which include the community of Castro Valley. The district consists primarily of residential occupancies with commercial occupancies (retail and service) needed to serve the community. Few industrial or wholesale occupancies exist.

the residential units consists of:

o Single family dwellings	15,070
o Two family dwellings	429
o Three- to four-family dwellings	689
o Five or more family dwellings	3,289
o Mobile home dwellings	<u>362</u>
TOTAL	19,837

- (1) Association of Bay Area Governments (ABAG) Projection 90
- (2) Alameda County Planning Department 3/08/90

MAP 5 SOUTH ZONE MUTUAL AID AGENCIES





MAP 6 - CASTRO VALLEY FIRE PROTECTION DISTRICT

● Fire Station

--- District Boundaries

The estimated number of occupancies existing in 1990 and the projected increases for 1995 and 2000 are listed in Table 45. Records of existing or projected commercial, industrial or public assembly occupancies are not available.

TABLE 45 - EXISTING AND PROJECTED CVFPD OCCUPANCIES 1990 TO 2000

OCCUPANCIES	EXISTING	PROJECTED	
	1990	1995	2000
Mobile Homes Units (R-3)	362	365	365
Single Family (R-3)	15,070	15,100	16,000
Hotels/Apts. (R-1)			
Hotels/Apts. Units (R-1)	4,767	4,800	5,050
Commercial (B-2)	n/a		
Health Care (I)	14	14	15
Public Assembly (A)	n/a		
Schools (E)	15	15	16
Government Buildings (B-2)	3	3	3
Industrial/high hazard (H)	n/a		

Fire District Organization

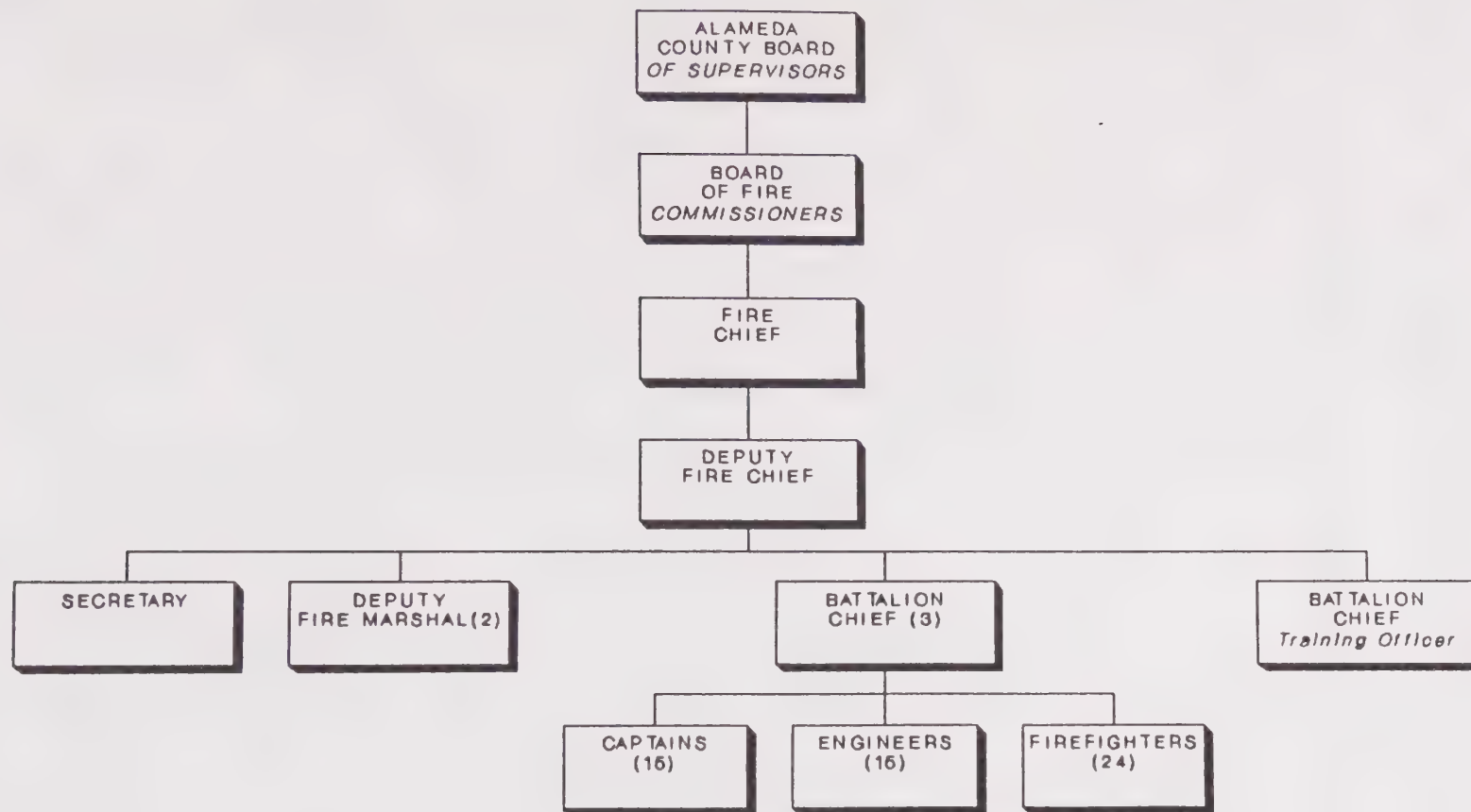
The CVFPD is a dependent district with a seven person Board of Directors appointed by the Board of Supervisors.

The district has three divisions, fire prevention, fire suppression and training. The district is staffed by 63 personnel. All personnel are career personnel. Table 46 lists the number of personnel by rank. Figure 5 describes the organization structure of the district.

TABLE 46 - CVFPD PERSONNEL BY RANK

POSITION	NUMBER OF PERSONNEL
Chief	1
Deputy Chief	1
Battalion Chief	3
Training Officer(B/C)	1
Deputy Fire Marshal	2
Captain	15
Engineer	15
Firefighters	24
Secretary	1
<hr/>	
Total	63

FIGURE 5 - CASTRO VALLEY FIRE PROTECTION DISTRICT ORGANIZATION CHART



Staff Assignments

Battalion Chiefs, Captains and fire prevention personnel perform staff functions. A listing of these staff functions and the persons assigned are listed in Table 47.

TABLE 47 - CVFPD STAFF FUNCTIONS

<u>NAME</u>	<u>RANK</u>	<u>STAFF ASSIGNMENT</u>
Henthorn	Battalion Chief	Apparatus Maint, ALCO liaison shop tools, EBMUD hydrant book rain gauge, CAD system, tele phones, communications.
Klatt	Battalion Chief	New equip., purchasing, maps and responses, supplies, fire attack, vacations.
Wade	Battalion Chief	Station & grounds, leaves (other than vac.) kitchen wares, run reports/CFIRS
Orr	Training Officer	Training, report writing, safety officer, disaster plans, computer
Bohman	Dep. Fire Marshal	Plan checking, knox boxes, misc. keys, water supply, codes, ordinances, & commercial inspections.
L. Brown	Fire Pre. Officer	Weed abatement, company inspections.
Bradley	Captain	Hydrants, blue hydrant markers
R. Brown	Captain	Emergency medical services.
Candelario	Captain	Ladders, architectural
Conover	Captain	Equipment & maint., rescue equip, tiller training.
Cysewski	Captain	Mutual aid, fee recovery, DUIs
Farrelle	Captain	Communications equip., radios and records.
Ghezzi	Captain	District boundaries, response book, maps.
Hayes	Captain	HAZ MATS
Kellogg	Captain	Insurance services office program
Larsen	Captain	Breathing apps. oxygen bottles
Robison	Captain	Access (bridges), pump testing
W. Smith	Captain	Public Ed, Public information.
Tibbets	Captain	Apprenticeship program, physical fitness, driver's license records
Trujillo	Captain	Premise file
Wucherer	Captain	Fire Hose

Management Information System

A computerized record and reporting system is being developed. The current record systems which have been automated are limited to word processing and financial records.

The district is currently in the process of purchasing a software program which will provide planning and management information for department operations.

The current computer hardware is an IBM compatible system which consists of 2 IBM PCs (an 8088 and a 8086) are assigned to the battalion chief and fire inspector.

- o 2 AST 80386 PC computer being used by the secretary and training officer.
- o 1 Evertex tape back-up
- o 1 Triplite battery back-up
- o 1 ALPSQ324E dot matrix printer
- o 1 Quiet writer 5201 letter quality printer

The current software in use by the district includes:

- o Budget Express
- o Word Perfect 5.1
- o Lotus 2.2
- o DBase III Plus
- o Q&A
- o Informix

The district has attempted to write their own software programs but have determined that purchasing "off-the-shelf" programs is more cost effective.

It is planned to provide a networked system with computers at each fire station in addition to the current computers.

At the present time, all records are maintained manually. Data is not readily available to plan and manage fire district programs.

Labor Relations

The personnel of the CVFPD are represented by the Ashland Firefighters (IAFF Local 1428). The members of Eden Consolidated FPD, Fairview FPD and the County Fire Patrol are also represented by this local.

The CVPD members not represented by Local 1428 are: the Fire Chief, Deputy Chief, Battalion Chief Deputy Fire Marshals and Secretary.

The current MOV will expire in January 1992.

Office Procedures

Desk manuals have not been prepared for clerical functions.

A records retention program has not been implemented.

District Staff Meetings

Staff meetings attended by all company officers and chief officers are held quarterly.

District Staffing

The staffing history of CVFPD is listed in Table 48.

TABLE 48 - STAFFING HISTORY 1985/86 TO 1990/91

Rank	90/91	89/90	88/89	87/88	86/87
Chief	1	1	1	1	1
Deputy Chief	1	1	1	1	1
Battalion Chief	3	3	3	3	3
Battalion Chief/Trng. Off	1	1	0	0	0
Deputy Fire Marshal	2	2	1	1	1
Captain	15	15	15	15	15
Engineer	15	15	15	15	15
Firefighter	24	24	24	24	24
Secretary	1	1	1	1	1
TOTAL	63	63	61	61	61

Work Schedule

The personnel who work a 40-week schedule, 8:00 am to 5:00 pm Monday through Friday are:

- o Fire Chief
- o Deputy Chief
- o Battalion Chief/Training Officer
- o Deputy Fire Marshal
- o Fire Inspection
- o Secretary

The personnel who work a 56-hour work week with 24-hour shifts are:

- o Battalion Chiefs
- o Fire Captains
- o Engineers
- o Firefighters

Authorized Leave Usage

The authorized leave usage for fire district personnel is listed in Table 49.

TABLE 49 - AUTHORIZED LEAVE USAGE 1985/86 TO 89/90

YEAR	SICKLEAVE	INJURY	VAC.	DISABILITY	RETIRED	RESIGNED
1989/90	4968	5100	10,008	16	5	3
1988/89	5692	4872	11,744	10	1	0
1987/88	4955	7731	10,752	14	0	1
1986/87	5230	3338	10,320	8	1	5
1985/86	4192	2772	9,210	13	2	3
ANNUAL AVERAGE	5007	4763	10,389	12.5	1.8	2.4
AVERAGE PER PERSON	80	76	165			

The total annual authorized leave usage per person is 321 hours.

Minimum Staffing

A minimum staffing of sixteen personnel has been established for the Suppression Division which consists of:

- 1 Battalion chief
- 5 Captains
- 5 Engineers
- 5 Firefighters

The positions of battalion chief, captain and engineer are filled by persons on the eligible list for promotion to those positions. If no such person is available the most senior person will fill the position.

The estimated hours per month devoted to district programs by suppression division personnel are listed in Table 50.

TABLE 50 - ESTIMATED ALLOCATION SUPPRESSION DIVISION PERSONNEL HOURS
(per year/per person)

<u>PROGRAM</u>	<u>B/C</u>	<u>CAPTAIN</u>	<u>ENG.</u>	<u>FIREFIGHTER</u>
Apparatus Testing & Maintenance	10	10	45	10
Breathing App.	3	3	3	3
Care & Maintenance Stations	0			180
Dept. Officer Meetings	24	12	12	12
Coffee Breaks	600	600	600	600
Incident Reports (1 rept. per call)	60	60	1	
Performance Evaluation/ Counseling	60	30	4	4
Special Committee Meetings	20	8	8	8
Emergency Responses (single engine)	0	135	135	135
Fire Hose Care & Maintenance	0	5	5	5
Fire Hydrant Testing & Maintenance	0	7	5	4
Pre-fire Planning	30	30	30	30
Training:				
New Employee/members	0	75	75	120
Skill Maint.	180	180	180	180
Volunteers		n/a		
Driver/Operator	10	19.5	30	30
HAZ MATs	24	15	15	15
Emergency Medical	30	30	30	30
Physical Fitness	225	225	225	225
Fire Code Enforcement	30	0	0	0
Fire Safety Education	4	8	4	4
<hr/>				
TOTAL	739.5	1,452	1,407	1,583

Revenues and Expenditures

The revenues and revenue sources of the CVFPD for the period 1986/87 to 1990/91 are listed in Table 51. Over 70 percent of the district revenues come from Special District Augmentation Funds (SDAF). Expenditures for the same time period are listed in Table 52.

A fire protection benefit assessment program is not currently in effect. A previous benefit assessment district was formed in 1982 under County Ordinance 82-46. The district was in effect from 1982/83 to 1984/85 when it expired.

In 1990, the fire district reached its appropriations limit as defined in Article XIII B of the California Constitution per Proposition 4 adopted by the voters in 1979. Measure H was passed by the Castro Valley District voters in April 1990, which raised the appropriation limit to \$10.0 million for each of the fiscal years 1990/91 to 1993/94.

A new construction development fee program has not been proposed.

TABLE 51 - CVFPD REVENUE SOURCES 86/87 TO 90/91

	<u>1986/87</u>	<u>1987/88</u>	<u>1988/89</u>	<u>1989/90</u>	<u>1990/91</u>
Prop. Taxes	887,962	1,009,840	1,144,631	1,241,333	1,315,518
SDAF	3,032,047	2,760,059	3,937,116	4,197,024	3,432,780
Comp.Ins.	101,878	175,000	123,506	164,698	75,000
Mandated Re-imb	1,103	2	6,253	37,627	0
Other Revenue	42,083	24,448	20,734	58,198	36,710
TOTAL	4,065,073	3,969,349	5,232,240	5,698,880	4,860,008

TABLE 51 - CVFPD EXPENDITURES/BUDGET

	<u>1986/87</u>	<u>1987/88</u>	<u>1988/89</u>	<u>1989/90</u>	<u>1990/91</u>
Personnel	3,092,677	3,776,707	4,110,619	4,462,615	4,636,409
Non-personal	313,131	326,910	359,278	552,411	624,943
Capital Imp.	50,314	24,044	42,007	147,691	258,625
TOTAL	3,456,122	4,127,661	4,511,904	5,162,717	5,519,977

Other revenues not listed here include carryover funds from previous budgets and hydrant fund revenues.

Salaries and Benefits

The current salary ranges for CVFPD personnel are effective until January 1992 and are listed in Table 52.

TABLE 52 - CVFPD SALARY RANGES

	Monthly Salary Range
Chief	\$7,015 - \$8,523
Deputy Chief	5,958 - 7,228
Deputy Fire Marshal I	4,682 - 5,704
Deputy Fire Marshal II	4,015 - 4,891
Battalion Chief	4,964 - 6,045
Training Officer/Batt Chief	4,964 - 6,045
Captain	3,513 - 4,279
Engineer	3,137 - 3,818
Firefighter	2,931 - 3,567
Secretary	2,617 - 3,103

Fringe benefits are estimated to equal approximately 30 percent of salary and include:

<u>Benefit</u>	<u>Uniformed</u>	<u>Non-Uniformed</u>
Holiday Pay	13 holidays per yr. 6.5 sfts. of pay	None
Fair Labor Stds.	Additional half pay for actual shift hrs. worked over 204	
Retirement	17.08% of total salary	2.525% of total salary
Worker's Comp.	11.35% of total salary minus overtime plus clothing allowance	95% of total salary
Medical	Current maximum of \$351.60 per month	Same
Dental	Current maximum of \$59.15 per month	Same
Life	Current maximum of \$5 per month	Same
Clothing Allowance	\$405 per year	None
Clothing	Supply 3 prs. uniform pants and 3 shirts	None
Safety Clothing	Supply all required safety clothing	None
EMS Training and Certification	2.5 percent of base salary	None

Fire Science/Fire Service Technology Certificate or Associate of Arts Degree in Fire Science/Fire Service Technology or Continuing Education Units

Any employee who has successfully completed his/her probationary period may be eligible to qualify for one and only one of the Fire Training Incentive awards described below. For those employees receiving the EMT differential in Section II above, classes taken for EMT courses cannot be credited for any of the educational incentive pay.

- A. An eligible employee possessing a valid Fire Science/Fire Service Technology Certificate or an Associate of Arts Degree in Fire Science/Fire Service Technology shall be entitled to receive thirty dollars (\$30) per month.
- B. Eligible employees who do not possess a valid Fire Science/Fire Service Technology Certificate or an Associate of Arts Degree in Fire Science/Fire Service Technology and who have successfully completed six quarter units or four semester units during the calendar year (January through December) shall be entitled to receive twenty-five dollars (\$25) per month for twelve months beginning the subsequent January. To be eligible for this award, an employee must receive a grade of C or better in courses at an accredited college or university previously approved by the Chief of the Department.
- C. Eligible employees who possess either a valid Fire Science/Fire Service Technology Certificate or an Associate of Arts Degree in Fire Science/Fire Service Technology and who have successfully completed six quarter units or four semester units during the calendar year (January through December) shall be entitled to receive forty-five dollars (\$45) per month for twelve months beginning the subsequent January. To be eligible for this award, an employee must receive a grade of C or better in courses at an accredited college or university previously approved by the Chief of the Department.

DISTRICT FACILITIES

The district owns and operates four fire stations. The administrative offices which include the fire prevention bureau and training division are located in modular office facilities at the rear of the Station 1 property.

A detailed description of each station is contained in Tables 53 to 56.

TABLE 53

FIRE DEPARTMENT FACILITY DESCRIPTION

Fire Station: Number 1 : Name Castro Valley Fire Protection Dis
 Location: 20336 San Miguel Avenue, Castro Valley, CA 94546
 Structure owned by: CVFPD Property owned by: CVFPD
 Type construction Steel/Block Year constructed 1966
 Lot size 163' x 346' Building Size: sq. ft. 5400'
 Apparatus room: No. bays 4 sq. ft. 4320'
 Apparatus room capacity: engines 3, trucks 1, other Brush Unit
 Apparatus door height 13' 6" ft. width 24' 9" ft. Chiefs Vehi
 Is apparatus room "drive through"? (Yes) X (No)
 Shop area's sq.ft. 345' Storage area: sq. ft. 160'
 Living quarters: 2842' sq. ft., Dormitory: 1280' sq. ft.,
 Individual rooms 418' sq. ft., Bath rooms 168' sq. ft.
 Fuel tank 500 gallons gasoline; 1000 gallons diesel
 o If fuel is not a station, where is refueling available?

 Emergency generator (Yes) X (No)
 o Generator will supply power to Station and Administrative
Offices
 Classroom - meeting area 480'sq. ft.
 Special equipment and/or facilities T.V., VCR, Training Aids, etc.;
Hose Rack, Workout Room
 Description of condition including needed repairs/alterations:
Remodel Kitchen, Re-roof, More Storage Space
 Administrative offices: Location: To the rear of Fire Station;
20336 San Miguel Avenue, Castro Valle
 Total area administrative 960' sq. ft. (including storage)
 Total area fire prevention 252' sq. ft.
 Conference room 480' sq. ft.

• • •

FIRE DEPARTMENT FACILITY DESCRIPTION

Fire Station: Number 2: Name Castro Valley Fire Protection District
Location: 19780 Cull Canyon Road, Castro Valley, CA 94546
Structure owned by: CVFPD Property owned by: CVFPD
Type construction Masonry/Steel Frame Year constructed 1980
Lot size 210' x 160' Building Size: sq. ft. 3888'
Apparatus room: No. bays 2 sq. ft. 1188'
Apparatus room capacity: engines 2, trucks 0, other 0
Apparatus door height 10' ft. width 12'-front
18'-rear ft.
Is apparatus room "drive through"? (Yes) X (No) _____
Shop area's sq.ft. N/A Storage area: sq. ft. 132'
Living quarters: 624' sq. ft., Dormitory: 360' sq. ft.,
Individual rooms 280' sq. ft., Bath rooms 121' sq. ft.
(210'-office, 70'-hallway)
Fuel tank N/A gallons gasoline; N/A gallons diesel
o If fuel is not a station, where is refueling available?
Station #1, 20336 San Miguel Avenue, Castro Valley
Emergency generator (Yes) X (No) _____
o Generator will supply power to Isolated circuits in office
and living quarters.
Classroom - meeting area N/A sq. ft.
Special equipment and/or facilities _____
Description of condition including needed repairs/alterations:
Workout Room, More Engine Bays
Administrative offices: Location: Station #1, 20336 San Miguel Avenue
Total area administrative _____ sq. ft. (including storage)
Total area fire prevention _____ sq. ft.
Conference room _____ sq. ft.

TABLE 55

FIRE DEPARTMENT FACILITY DESCRIPTION

Fire Station: Number 3 : Name Castro Valley Fire Protection Dis

Location: 18770 Lake Chabot Road, Castro Valley, CA 94546

Structure owned by: CVFPD Property owned by: CVFPD

Type construction Steel/Block Year constructed 1963

Lot size 18,000 sq ft Building Size: sq. ft. 2486'

Apparatus room: No. bays 2 sq. ft. 980'

Apparatus room capacity: engines 2, trucks 0, other 0

Apparatus door height 12' ft. width 10' ft.

Is apparatus room "drive through"? (Yes) (No) X

Shop area's sq.ft. N/A Storage area: sq. ft. N/A

Living quarters: 2346' sq. ft., Dormitory: 348' sq. ft.,

Individual rooms 120' sq. ft., Bath rooms 110' sq. ft.

Fuel tank N/A gallons gasoline; N/A gallons diesel

- o If fuel is not a station, where is refueling available?

Station #1, 20336 San Miguel Avenue, Castro Valley

Emergency generator (Yes) X (No) _____

- o Generator will supply power to Station

Classroom - meeting area N/A sq. ft.

Special equipment and/or facilities

Description of condition including needed repairs/alterations:

Workout Room

Administrative offices: Location: Station #1, 20336 San Miguel Avenue

Total area administrative _____ sq. ft. (including storage)

Total area fire prevention _____ sq. ft.

Conference room _____ sq. ft.

FIRE DEPARTMENT FACILITY DESCRIPTION

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Fire Apparatus and Vehicles

The district maintains four engines, one truck, one brush unit and seven support vehicles. (See Table 57)

TABLE 57 - CVFPD APPARATUS INVENTORY

APPARATUS	DATE PURCHASED	SCHEDULED REPLACEMENT DATE	MILEAGE
Engine (108)	1991	2011	3,000
Engine 1 (105)	1984	1999	21,800
Engine 2 (106)	1986	2001	33,400
Engine 3 (103)	1980	1996	53,500
Engine 4 (107)	1987	2002	16,700
Ladder 1 (202)	1989	2009	10,600
Engine 11(102)	1972	1991	39,800
Engine 22(104)	1982	1997	21,200
Patrol 1 (301)	1980	1995	7,620
Air/light(302)	1991	n/a	n/a
Utility truck	1982	n/a	50,000
Auto #403	1982	n/a	50,000
Auto #404	1983	n/a	50,000
Auto #405	1984	n/a	75,000
Auto #406	1989	n/a	20,000
Auto #407	1990	n/a	9,000

The district has established a replacement policy for fire apparatus which is based upon the age of the vehicle:

- o Engines: 15 years first line service, 3 to 5 years reserve
- o Ladder Truck: 20 yrs, first line service, 3 to 5 yrs. reserve
- o Patrol: 15 years

A scheduled replacement policy for vehicles has been established at five years but has not been followed.

An apparatus amortization plan to fund apparatus replacement has not been development When surpluses are available they are placed in a contingency fund which has been used for apparatus replacement.

A preventive maintenance program has been established with a private maintenance firm which conducts semi-annual and annual preventive maintenance services. (See Appendix I) The maintenance costs for apparatus for 1986 to 1990 are listed in Table 58.

TABLE 58 - APPARATUS MAINTENANCE COSTS 1986 TO 1990

APPARATUS	1986	1987	1988	1989	1990
Engine 1				\$10,019	\$3,370
Engine 2		\$992		\$3,218	\$2,418
Engine 3	\$754		\$1,716	\$3,227	\$23,301
Engine 4			\$818	\$4,665	\$3,580
Ladder 1				\$12	\$36
Engine 11	\$6,578		\$1,850	\$4,127	\$770
Engine 22	\$4,016			\$1,851	

All apparatus are checked daily to assure operational reliability by the apparatus operators. Monthly apparatus and equipment tests and maintenance are performed by apparatus operators in compliance with an established set of guide lines.

The downtime experienced by the district apparatus for the period of 1987 to 1990 is listed in Table 59.

TABLE 59 - CVFPD APPARATUS DOWNTIME, 1987 TO 1990
(hours)

APPARATUS	1987	1988	1989	1990
E- (108)				NEW
E-1(105)	0	1,080	552	252
E-2(106)	312	552	336	60
E-3(103)	600	120	114	1,944
E-4(107)	1,956	96	72	348
L-1(202)	n/a	n/a	12	36
E-11(102)	24	336	1,056	168
E-22(104)	2,928	1,092	108	96
P-1 (301)	9	0	1	0
AL-1(302)				NEW
TOTAL	5,824	3,276	2,251	2,904

TABLE 60

APPARATUS INVENTORY

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ENGINE ONE CV # 105

Mobile Radio: Frequencies 154.070, 154.280, 154.295, 154.235, 155.400
 Portable Radios: No. TWO ; Frequencies 154.070, 154.280, 154.265, 154.295

Maintenance history:

Pump test: Date of last test 1989; Results Failed

Aerial ladder/snorkel: Date last test Results

	89/90	88/89	87/88	86/87	85/86	TOTAL
Downtime (total hrs)	<u>252</u>	<u>552</u>	<u>1080</u>	<u> </u>	<u> </u>	<u>1884</u>
Maintenance (\$)	<u>3370</u>	<u>10019</u>	<u> </u>	<u> </u>	<u> </u>	<u>13389</u>

List on a all major repairs within the last five years:

Date	Repair
1988	Rebuild Pump
1988	Replace Door Latch
1989	Replace Injectors
1990	Yearly Service

Describe major delays in obtaining repair parts:

TABLE 61
APPARATUS INVENTORY

Apparatus number 1-E-2 Inventory number: 106 Model/yr. Pumper-1986
Type: (engine, truck, etc.) Engine Milage 33,176
Manufacturer: Beck
Date purchased 1986 Yrs. 1st line 4 Yrs. reserve 0
Scheduled replacement date 2001
Engine: Make Detroit Model 8V92TA gas () diesel (XX)
Transmission: Make Allison Model 740 Man. () Auto (XXX)
Pump: Make Darley Model SH1500 Rated Cap. 1500 gpm.
Primer: Type Darley V-78-lPress. relief valve: Type Darley G2040
Aerial/Snorkel/Squirt: Make _____ Model _____; _____ft.
Brakes: Front; Disc XXX, Shoe () Size _____in.
Rear; Disc (), Shoe (XXX) Size _____in.
System; Air XXX, Hydrovac ()
Emergency brake; Type Spring (Bendix)
Steering: Power assist - yes XXX no ()
Water Tank: Capacity 750 gal., Const: steel XXX, fiberglass (), other
Internally treated with _____ Date last treated _____
Enclosed cab, yes XXX no (); No. seats w/seat belts 4
Personnel ride rear tail board, yes () no XXX, if yes, w/safety belts ()
Foam: Proportioner, yes (), no (XX); tank _____gal.
Wetting agent: Proportioner, yes (), no (XX); tank _____gal.
Fire Hose: 4 or 5 900 ft.; 3" 0 ft.; 2 1/2" 950 ft.; 1 3/4" 0 ft
Attach #17 ¹ 1/2" 750 ft.; 3/4" 200 ft.; Suction hose 15 ft. 2 1/2, 5 in
Preconnects: ¹⁵⁰
200 ft. 1 1/2 in.; _____ft. _____in.
Master Stream Appl.: Capacity 750 gpm.; Preconnected yes XXX no ()
Breathing Apparatus: No. 4; Type MSA; Spare Bottles 4
Special equipment: Hurst Tool

ENGINE TWO CV # 106

Mobile Radio: Frequencies 154.070, 154.280, 154.295, 154.235, 155.400

Portable Radios: No. TWO ; Frequencies 154.070, 154.280, 154.265, 154.295

Maintenance history:

Pump test: Date of last test 1989 ; Results Passed

Aerial ladder/snorkel: Date last test _____ Results _____

	89/90	88/89	87/88	86/87	85/86	TOTAL
Downtime (total hrs)	<u>60</u>	<u>336</u>	<u>552</u>	<u>312</u>	<u> </u>	<u>1260</u>
Maintenance (\$)	<u>2418</u>	<u>3218</u>	<u> </u>	<u>992</u>	<u> </u>	<u>6628</u>

List on a all major repairs within the last five years:

Date	Repair
1986	Speedometer
1987	Body Work
1987	Radiator
1988	Brakes
1989	Shift Selector
1989	Service
1990	Throttle Valve

Describe major delays in obtaining repair parts:

TABLE 62

APPARATUS INVENTORY

Apparatus number 1-E-3 Inventory number: 103 Model/yr Pumper-1980
 Type: (engine, truck, etc.) Engine Milage 53,367
 Manufacturer: Pemberton Fabricators Inc.
 Date purchased 1981 Yrs. 1st line 9 Yrs. reserve 0
 Scheduled replacement date To reserve 1991
 Engine: Make Detroit Model 8V-71TAE gas () diesel ~~XXX~~
 Transmission: Make Allison Model HT-740 Man. () Auto ~~XXX~~
 Pump: Make Waterous Model CS4BX-1250 Rated Cap. 1250 gpm.
 Primer: Type _____ Press. relief valve: Type _____
 Aerial/Snorkel/Squirt: Make _____ Model _____; _____ ft.
 Brakes: Front; Disc (), Shoe ~~XX~~ Size _____ in.
 Rear; Disc (), Shoe ~~XX~~ Size _____ in.
 System; Air ~~XX~~, Hydrovac ()
 Emergency brake; Type Spring
 Steering: Power assist - yes ~~XX~~ no ()
 Water Tank: Capacity 500 gal., Const: steel ~~XX~~, fiberglass (), other
 Internally treated with _____ Date last treated _____
 Enclosed cab, yes () no ~~XX~~; No. seats w/seat belts 4
 Personnel ride rear tail board, yes () no ~~XX~~, if yes, w/safety belts ()
 Foam: Proportioner, yes (), no ~~XX~~; tank _____ gal.
 Wetting agent: Proportioner, yes (), no ~~XXX~~; tank _____ gal.
 Fire Hose: 4 or 5" 900 ft.; 3" 0 ft.; 2 1/2" 1100 ft.; 1 3/4" 0 ft.
 Attach #17 1 1/2" 550 ft.; 3/4" 400 ft.; Suction hose 15 ft. 2 1/2, 5 in
 Preconnects: ¹⁵⁰
200 ft. 1 1/2 in.; _____ ft. _____ in.
 Master Stream Appl.: Capacity 500 gpm.; Preconnected yes () no ~~XXX~~
 Breathing Apparatus: No. 5; Type MSA; Spare Bottles 3
 Special equipment: _____

ENGINE THREE CV # 103

Mobile Radio: Frequencies 154.070, 154.280, 154.295, 154.235, 155.400

Portable Radios: No. TWO ; Frequencies 154.070, 154.280, 154.265, 154.295

Maintenance history:

Pump test: Date of last test 6-87 ; Results Passed

Aerial ladder/snorkel: Date last test _____ Results _____

	89/90	88/89	87/88	86/87	85/86	TOTAL
Downtime (total hrs)	<u>1944</u>	<u>114</u>	<u>120</u>	<u>600</u>		<u>2778</u>
Maintenance (\$)	<u>23301</u>	<u>3227</u>	<u>1716</u>		<u>754</u>	<u>28998</u>

List on a all major repairs within the last five years:

Date	Repair
1988	Broken U-Bolts
1989	Injectors Stuck
1990	Brakes, Hoses, Alternator, Plumbing
1990	Broken Frame
1990	Tearly Service

Describe major delays in obtaining repair parts:

TABLE 63

APPARATUS INVENTORY

Apparatus number 1-E-4 Inventory number: 107 Model/yr. Pumper-1987
 Type: (engine, truck, etc.) Engine Milage 16618
 Manufacturer: Beck
 Date purchased 1987 Yrs. 1st line 3 Yrs. reserve 0
 Scheduled replacement date 2002
 Engine: Make Detroit Model 8V92A gas () diesel (XXX)
 Transmission: Make Allison Model HT 700 ATEC Man. () Auto (XX)
 Pump: Make Darley Model SA1500 Rated Cap. 1500 gpm.
 Primer: Type Darley Press. relief valve: Type Darley
 Aerial/Snorkel/Squirt: Make _____ Model _____; _____ ft.
 Brakes: Front; Disc XXX, Shoe () Size _____ in.
 Rear; Disc XXX, Shoe () Size _____ in.
 System; Air XXX, Hydrovac ()
 Emergency brake; Type Spring
 Steering: Power assist - yes XXX no ()
 Water Tank: Capacity 750 gal., Const: steel XXX, fiberglass (), other
 Internally treated with _____ Date last treated _____
 Enclosed cab, yes (XX) no (); No. seats w/seat belts 5
 Personnel ride rear tail board, yes () no (XX), if yes, w/safety belts ()
 Foam: Proportioner, yes (XXX) no (); tank 6 gal. Buckets
 Wetting agent: Proportioner, yes (), no (XX); tank _____ gal.
 Fire Hose: 4 or 5" 200 ft.; 3" 0 ft.; 2 1/2" 850 ft.; 1 3/4" 0 ft.
 Attach #17 1 1/2" 450 ft.; 3/4" 400 ft.; Suction hose 14 ft. 5 in.
 Preconnects: 150 ft. 1 1/2 in.; _____ ft. _____ in.
 Master Stream Appl.: Capacity 1000 gpm.; Preconnected yes XXX no ()
 Breathing Apparatus: No. 4; Type MSA; Spare Bottles 4
 Special equipment: Hurst Tool, Air Chisel

ENGINE FOUR CV # 107

Mobile Radio: Frequencies 154.070, 154.280, 154.295, 154.235, 154.400

Portable Radios: No. TWO ; Frequencies 154.070, 154.280, 154.265, 154.295

Maintenance history:

Pump test: Date of last test 1989 ; Results Failed

Aerial ladder/snorkel: Date last test _____ Results _____

	89/90	88/89	87/88	86/87	85/86	TOTAL
Downtime (total hrs)	<u>348</u>	<u>72</u>	<u>96</u>	<u>1956</u>	<u> </u>	<u>2472</u>
Maintenance (\$)	<u>3580</u>	<u>4665</u>	<u>818</u>	<u> </u>	<u> </u>	<u>9063</u>

List on a all major repairs within the last five years:

Date	Repair
1988	Electrical
1988	Electrical
1988	Door Glass
1989	Service
1989	Repair Retarder, Oil Leaks, Fuel Lines
1990	Repair Front End

Describe major delays in obtaining repair parts:

TABLE 64

APPARATUS INVENTORY

Apparatus number 1-L-1 Inventory number: 202 Model/yr. Ladder-1989
Type: (engine, truck, etc.) Ladder Truck Milage 10,595
Manufacturer: Simon LTI
Date purchased 7-89 Yrs. 1st line 1 Yrs. reserve 0
Scheduled replacement date 2009
Engine: Make Detroit Diesel Model 8V92TA gas () diesel (XX)
Transmission: Make Allison Model H7B-7SSCR Man. () Auto ~~XXX~~
Pump: Make _____ Model _____ Rated Cap. _____ gpm.
Primer: Type _____ Press. relief valve: Type _____
(Aerial) Snorkel/Squirt: Make Simon LTI Model 25-110; 110 ft.
Brakes: Front; Disc (), Shoe ~~XXX~~ Size _____ in.
Rear; Disc (), Shoe ~~XXX~~ Size _____ in.
System; Air ~~XXX~~, Hydrovac ()
Emergency brake; Type Spring, Air
Steering: Power assist - yes ~~XXX~~ no ()
Water Tank: Capacity _____ gal., Const: steel (), fiberglass (), other
Internally treated with _____ Date last treated _____
Enclosed cab, yes ~~XXX~~ no (); No. seats w/seat belts Six
Personnel ride rear tail board, yes () no ~~XXX~~, if yes, w/safety belts ()
Foam: Proportioner, yes (), no ~~XXX~~; tank _____ gal.
Wetting agent: Proportioner, yes (), no ~~XXX~~; tank _____ gal.
Fire Hose: 4 or 5" 25 ft.; 3" 0 ft.; 2 1/2" 0 ft.; 1 3/4" 0 ft.
Attach #17 1 1/2" 100 ft.; 3/4" 0 ft.; Suction hose _____ ft. _____ in.
Preconnects: 0 ft. _____ in.; 0 ft. _____ in.
Master Stream Appl.: Capacity 1000 gpm.; Preconnected yes ~~XXX~~ no ()
Breathing Apparatus: No. 5; Type MSA; Spare Bottles 6
Special equipment: Hurst Tool, Air Bags, Chain Saws, Smoke Blowers
K1200 Saw, Generator, Lights, Compressed Air Outlets

LADDER ONE CV # 202

Mobile Radio: Frequencies 154.070, 154.280, 154.295, 154.235, 155.400

Portable Radios: No. TWO ; Frequencies 154.070, 154.280, 154.265, 154.295

Maintenance history:

Pump test: Date of last test 1990 ; Results Passed

Aerial ladder/snorkel: Date last test _____ Results _____

	89/90	88/89	87/88	86/87	85/86	TOTAL
Downtime (total hrs)	<u>36</u>	<u>12</u>	<u> </u>	<u> </u>	<u> </u>	<u>48</u>
Maintenance (\$)	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

List on a all major repairs within the last five years:

Date	Repair
1990	Braken Cable Pulley
1990	Service

Describe major delays in obtaining repair parts:

TABLE 65

APPARATUS INVENTORY

Apparatus number 1-E-11 Inventory number: 102 Model/yr. Pumper-1972
 Type: (engine, truck, etc.) Engine Milage 39,706
 Manufacturer: Seagrave
 Date purchased 1972 Yrs. 1st line 13 Yrs. reserve 5
 Scheduled replacement date 1991
 Engine: Make Detroit Model 8V71 gas () diesel XXX
 Transmission: Make Spicer Model 6852 Man. XXX Auto ()
 Pump: Make Waterous Model CPK-4 Rated Cap. 1250 gpm.
 Primer: Type _____ Press. relief valve: Type Ross 20R
 Aerial/Snorkel/Squirt: Make _____ Model _____; _____ ft.
 Brakes: Front; Disc (), Shoe XXX Size _____ in.
 Rear; Disc (), Shoe XXX Size _____ in.
 System; Air XXX, Hydrovac ()
 Emergency brake; Type Spring
 Steering: Power assist - yes XXX no ()
 Water Tank: Capacity 500 gal., Const: steel XXX, fiberglass (), other
 Internally treated with _____ Date last treated _____
 Enclosed cab, yes XX no (); No. seats w/seat belts 4
 Personnel ride rear tail board, yes () no XX, if yes, w/safety belts ()
 Foam: Proportioner, yes (), no XX; tank _____ gal.
 Wetting agent: Proportioner, yes (), no XX; tank _____ gal.
 Fire Hose: 4 or 5" 800 ft.; 3" 0 ft.; 2 1/2" 1000 ft.; 1 3/4" 0 ft.
 Attach #17 1 1/2" 350 ft.; 3/4" 400 ft.; Suction hose 15 ft. 5 in.
 Preconnects: 150 ft. 1 1/2 in.; _____ ft. _____ in.
 Master Stream Appl.: Capacity _____ gpm.; Preconnected yes () no ()
 Breathing Apparatus: No. 3; Type MSA; Spare Bottles 2
 Special equipment: _____

ENGINE ELEVEN CV # 102

Mobile Radio: Frequencies 154.070, 154.280

Portable Radios: No. NONE; Frequencies _____

Maintenance history:

Pump test: Date of last test 6-87; Results Passed

Aerial ladder/snorkel: Date last test _____ Results _____

	89/90	88/89	87/88	86/87	85/86	TOTAL
Downtime (total hrs)	<u>168</u>	<u>1056</u>	<u>336</u>	<u>24</u>		<u>1584</u>
Maintenance (\$)	<u>770</u>	<u>4127</u>	<u>1850</u>		<u>6578</u>	<u>13325</u>

List on a all major repairs within the last five years:

Date	Repair
1985	Rebuild Transmission
1985	Brakes
1985	Repair High Pressure Pump
1985	Repair Steering
1988	U-Joints, Driveline, Transfer Case
1989	Replace Clutch
1989	Rebuild Front End
1990	Repair Rear End
1990	Brakes

Describe major delays in obtaining repair parts:

Orders from back east from Seagrave

TABLE 66
APPARATUS INVENTORY

Apparatus number 1-E-22 Inventory number: 104 Model/yr. Pumper-1982
Type: (engine, truck, etc.) Engine Milage 21059
Manufacturer: Beck
Date purchased 1982 Yrs. 1st line 3 Yrs. reserve 5
Scheduled replacement date 1997
Engine: Make Detroit Model V8, 8.2 liter gas () diesel XXX
Transmission: Make Allison Model MT643 Man. () Auto XX
Pump: Make Darley Model _____ Rated Cap. 500 gpm.
Primer: Type Darley Press. relief valve: Type Darley
Aerial/Snorkel/Squirt: Make _____ Model _____; _____ ft.
Brakes: Front; Disc (), Shoe XX Size _____ in.
Rear; Disc (), Shoe XX Size _____ in.
System; Air XX, Hydrovac ()
Emergency brake; Type Spring
Steering: Power assist - yes XX no ()
Water Tank: Capacity 300 gal., Const: steel XX, fiberglass (), other
Internally treated with _____ Date last treated _____
Enclosed cab, yes XX no (); No. seats w/seat belts 3
Personnel ride rear tail board, yes () no XXX, if yes, w/safety belts ()
Foam: Proportioner, yes (), no XXX; tank _____ gal.
Foaming agent: Proportioner, yes (), no XXX; tank _____ gal.
Fire Hose: 4 or 5" 0 ft.; 3" 900 ft.; 2 1/2" 0 ft.; 1 3/4" 0 ft.
Attach #1 1/2" 0 ft.; 3/4" 0 ft.; Suction hose _____ ft. _____ in.
Preconnects: ¹⁵⁰200 ft. 1 1/2 in.; _____ ft. _____ in.
Master Stream Appl.: Capacity 500 gpm.; Preconnected yes XXX no ()
Breathing Apparatus: No. 2; Type MSA; Spare Bottles 0
Special equipment: _____

ENGINE FIVE CV # 104

Mobile Radio: Frequencies 154.070, 154.280

Portable Radios: No. NONE; Frequencies _____

Maintenance history:

Pump test: Date of last test _____; Results _____

Aerial ladder/snorkel: Date last test _____ Results _____

	89/90	88/89	87/88	86/87	85/86	TOTAL
Downtime (total hrs)	<u>96</u>	<u>108</u>	<u>1092</u>	<u>2928</u>		<u>4224</u>
Maintenance (\$)		<u>1851</u>			<u>4016</u>	<u>5867</u>

List on a all major repairs within the last five years:

Date	Repair
1985	Cracks, Water Tank
1985	Replace Engine
1985	Replace Pump, Engine Boby
1989	Brake Pod
1989	Replace Injectors

Describe major delays in obtaining repair parts:

TABLE 67

APPARATUS INVENTORY

Apparatus number 1-P-1 Inventory number: 301 Model/yr. Pickup-1980
 Type: (engine, truck, etc.) Patrol Milage 7620
 Manufacturer: Chevrolet
 Date purchased 1980 Yrs. 1st line 10 Yrs. reserve 0
 Scheduled replacement date 1995
 Engine: Make Chevrolet Model 350 gas (XX) diesel ()
 Transmission: Make _____ Model MM4 Man. (XX) Auto ()
 Pump: Make Western Model 14000 Rated Cap. 31 gpm.
 Primer: Type _____ Press. relief valve: Type _____
 Aerial/Snorkel/Squirt: Make _____ Model _____; _____ ft.
 Brakes: Front; Disc ~~XXX~~, Shoe () Size _____ in.
 Rear; Disc (), Shoe ~~XXX~~ Size _____ in.
 System; Air (), Hydrovac ()
 Emergency brake; Type Cable to rear shoes
 Steering: Power assist - yes ~~XXX~~ no ()
 Water Tank: Capacity 200 gal., Const: steel (XX), fiberglass (), other
 Internally treated with _____ Date last treated _____
 Enclosed cab, yes ~~XXX~~ no (); No. seats w/seat belts 1 seat 2 belts
 Personnel ride rear tail board, yes () no ~~XXX~~, if yes, w/safety belts ()
 Foam: Proportioner, yes (), no ~~XXX~~; tank _____ gal.
 Wetting agent: Proportioner, yes (), no ~~XXX~~; tank _____ gal.
 Fire Hose: 4 or 5" 0 ft.; 3" 0 ft.; 2 1/2" 0 ft.; 1 3/4" 0 ft.
 Attach #17 1 1/2" 0 ft.; 3/4" 200 ft.; Suction hose 25 ft. 2 1/2 in
 Preconnects: 0 ft. _____ in.; 0 ft. _____ in.
 Master Stream Appl.: Capacity _____ gpm.; Preconnected yes () no ()
 Breathing Apparatus: No. _____; Type _____; Spare Bottles _____
 Special equipment: Four wheel drive, chain saw, 1" Forestry Hose

4X4 PATROL ONE CV# 301

Mobile Radio: Frequencies 154.070, 154.280 REGIONAL PARKS 44.640

Portable Radios: No. NONE; Frequencies NONE

Maintenance history:

Pump test: Date of last test _____; Results _____

Aerial ladder/snorkel: Date last test _____ Results _____

89/90	88/89	87/88	86/87	85/86	TOTAL
-------	-------	-------	-------	-------	-------

Downtime (total hrs)	_____	_____	_____	_____	_____
----------------------	-------	-------	-------	-------	-------

Maintenance (\$)	_____	_____	_____	_____	_____
------------------	-------	-------	-------	-------	-------

List on a all major repairs within the last five years:

Date	Repair
------	--------

Describe major delays in obtaining repair parts:

TABLE 67A

APPARATUS INVENTORY

Apparatus number 108 Inventory number: 108 Model/yr. 1991
 Type: (engine, truck, etc.) Engine Milage 3,000
 Manufacturer: Beck Fire Apparatus
 Date purchased 03/91 Yrs. 1st line _____ Yrs. reserve _____
 Scheduled replacement date 2011
 Engine: Make _____ Model _____ gas () diesel (X)
 Transmission: Make Allison Model H700 ATEC Man. () Auto (X)
 Pump: Make Hale Model OSMG Rated Cap. 1500 gpm.
 Primer: Type Hale Press. relief valve: Type Hale
 Aerial/Snorkel/Squirt: Make _____ Model _____; _____ ft.
 Brakes: Front; Disc (X), Shoe () Size _____ in.
 Rear; Disc (X), Shoe () Size _____ in.
 System; Air (X), Hydrovac ()
 Emergency brake; Type Spring/Air
 Steering: Power assist - yes (X) no ()
 Water Tank: Capacity 500 gal., Const: steel (), fiberglass (X), other Aluminum
 Internally treated with _____ Date last treated _____
 Enclosed cab, yes (X) no (); No. seats w/seat belts 6
 Personnel ride rear tail board, yes () no (X), if yes, w/safety belts ()
 Foam: Proportioner, yes (), no (X); tank _____ gal.
 Wetting agent: Proportioner, yes (), no (X); tank _____ gal.
 Fire Hose: 4 or 5" 900 ft.; 3" 0 ft.; 2 1/2" 850 ft.; 1 3/4" 0 ft.
 1 1/2" 450 ft.; 3/4" 200 ft.; Suction hose 15 ft. 5 in.
 Preconnects: 150 ft. 1 1/2 in.; 150 ft. 2 1/2 in.
 Master Stream Appl.: Capacity 1000 gpm.; Preconnected yes (X) no ()
 Breathing Apparatus: No. 4; Type MSA; Spare Bottles 4
 Special equipment: _____

Apparatus # 108

Mobile Radio: Frequencies 154.07 159.28 154.295 154.235 155.400

Portable Radios: No. 2; Frequencies 154.07 154.28 154.295 154.265

Maintenance history: None - New

Pump test: Date of last test _____; Results _____

Aerial ladder/snorkel: Date last test _____ Results _____

89/90	88/89	87/88	86/87	85/86	TOTAL
-------	-------	-------	-------	-------	-------

Downtime (total hrs)

Maintenance (\$)

List on a all major repairs within the last five years:

Date

Repair

Describe major delays in obtaining repair parts:

TABLE 67B

APPARATUS INVENTORY

Apparatus number 302 Inventory number: 302 Model/yr. 1990
 Type: (engine, truck, etc.) Air/Light Unit Milage 650
 Manufacturer: Ford/Paoletti
 Date purchased 02/91 Yrs. 1st line _____ Yrs. reserve _____
 Scheduled replacement date _____
 Engine: Make Ford Model _____ gas (X) diesel ()
 Transmission: Make Ford Model _____ Man. () Auto (X)
 Pump: Make _____ Model _____ Rated Cap. _____ gpm.
 Primer: Type _____ Press. relief valve: Type _____
 Aerial/Snorkel/Squirt: Make _____ Model _____; _____ft.
 Brakes: Front; Disc (X), Shoe () Size _____in.
 Rear; Disc (X), Shoe () Size _____in.
 System; Air (X), Hydrovac ()
 Emergency brake; Type Spring/Air
 Steering: Power assist - yes (X) no ()
 Water Tank: Capacity _____ gal., Const: steel (), fiberglass (), other
 Internally treated with _____ Date last treated _____
 Enclosed cab, yes (X) no (); No. seats w/seat belts 3
 Personnel ride rear tail board, yes () no (X), if yes, w/safety belts ()
 Foam: Proportioner, yes (), no (X); tank _____ gal.
 Wetting agent: Proportioner, yes (), no (X); tank _____ gal.
 Fire Hose: 4 or 5" _____ft.; 3" _____ft.; 2 1/2" _____ft.; 1 3/4" _____ft.
 1 1/2" _____ft.; 3/4" _____ft.; Suction hose _____ft. _____in.
 Preconnects: _____ft. _____in.; _____ft. _____in.
 Master Stream Appl.: Capacity _____gpm.; Preconnected yes () no ()
 Breathing Apparatus: No. _____; Type _____; Spare Bottles _____
 Special equipment: 4000 Watt Generator; 4500 lbs. PSI Air Pump

Apparatus # 302

Mobile Radio: Frequencies 154.07 159.28 154.295 154.235 155.400

Portable Radios: No. 1; Frequencies 154.07 154.28 154.295 154.265

Maintenance history: None - New

Pump test: Date of last test _____; Results _____

Aerial ladder/snorkel: Date last test _____ Results _____

	89/90	88/89	87/88	86/87	85/86	TOTAL
--	-------	-------	-------	-------	-------	-------

Downtime (total hrs)	_____	_____	_____	_____	_____	_____
----------------------	-------	-------	-------	-------	-------	-------

Maintenance (\$)	_____	_____	_____	_____	_____	_____
------------------	-------	-------	-------	-------	-------	-------

List on a all major repairs within the last five years:

Date	Repair
------	--------

Describe major delays in obtaining repair parts:

FIRE PREVENTION

The CVFPD fire prevention program includes new construction plan review, construction site inspections, weed abatement, periodic inspections of licensed health facilities, fire safety education and fire investigation. Periodic reinspections of multi-family, commercial and industrial occupancies are not conducted.

The district enforces the provisions of the State Health and Safety Code (Title 19 of the California Administrative Code) and the fire code of Alameda County. The State Fire Marshal provides inspection services for the Fairview Hospital. The county is currently operating under the 1985 Uniform Fire Code (See Appendix A). The county has adopted an automatic fire sprinkler ordinance which exceeds the minimal requirements of the Uniform Building Code. (See Appendix B) This ordinance is enforced by the CVFPD. The district has not adopted amendments to the Uniform Fire Code which provide additional requirements.

The County Planning Department provides copies of parcel maps, tract maps, site plans and zoning changes for review by the CVFPD.

The County Building Department provides copies of construction plans and specifications for new single family residential tracts, multi-family dwelling, commercial and industrial structures for review by fire districts for fire code compliance. These plans are available at the building department offices in Hayward. The building department encourages the participation of the districts and has stated that office space is available for use by the fire districts to accommodate a scheduled plan review process. (See Appendix A)

The building department will not issue building permits or certificates of occupancy when notified by the fire districts that code compliance problems exist.

In the past all code enforcement activities were performed by the fire prevention bureau. Suppression division personnel did not perform fire code enforcement functions. Reports of hazards or complaints were forwarded to the fire prevention bureau by the suppression division when detected. A company inspection program has been developed and the program was initiated in March 1991.

The deputy chief is assigned overall responsibility for fire prevention operations. The fire prevention bureau is staffed with two deputy fire marshals. One deputy fire marshal is responsible for plans checking, new construction inspections, water supply, Knox Box installations, water supply and commercial inspections. The other deputy fire marshal is responsible for weed abatement and the company inspection program.

Inspection Frequencies:

Multi-family, commercial and industrial occupancies are not inspected under a scheduled program but are inspected in response to complaints. However, the district has established a desired schedule for the reinspection of various types of occupancies:

- o Public assembly (A-1 to A-4) - annually
- o Multi-family (R-1) - annually
- o Commercial (B-1,2,3,4) - annually
- o Industrial (H-1 to 7) - annually
- o Health Care (I-1,2,3) - annually & upon referral for licensing
- o Schools (E- 1,2,3) - annually

Records of inspections performed, hazards found or hazards corrected are not maintained.

A citation program has not been developed.

Permits as provided for in the Uniform Fire Code have not been implemented by CVFPD. Permit fees which fund the operation of code enforcement have not been adopted with the exception of the weed abatement program. A weed abatement administrative fee of \$116 is charged. However, the weed abatement program is not self funded.

New development access standards have been adopted by the CVFPD:

- o Minimum street widths:
 - o 39 feet - public streets to maintain 20 ft. clear
 - o 36 feet - county public streets
 - o 24 feet - private streets
 - o 16 feet - private driveways
- o Maximum dead end street length - 150 feet, w/ turnarounds
- o Minimum cul-de-sac dimension - 70 foot diameter
- o Minimum Hammer-head dimension - 100 foot length
- o Maximum grade of roadways - 15 degrees
- o Maximum angle of departure - less than 8 degrees
- o House number size - 4 inch height, 1/2 inch stroke, with contrasting colors

The estimated monthly allocation of personnel hours by members of the fire prevention bureau is listed in Table 68:

TABLE 68 - ESTIMATED MONTHLY ALLOCATION OF FIRE PREVENTION PERSONNEL HOURS

Program	Deputy Fire Marshal	Fire Inspector
Consultation	23	15
Staff Meetings	2	2
Meetings with Other Departments	6	8
Plan Review	44	0
Construction Inspections	65	0
Periodic Scheduled Reinspections	0	20
Code Committees	0	0
Professional Associations	12	12
Training	8	16
Public Fire Safety Education	0	0
Weed Abatement	0	50
<u>Haz Mats Requirements</u>	<u>0</u>	<u>5</u>
Total Hours	160	128

Fire Safety Education:

The fire safety education program is organized and managed by a suppression division fire captain as a staff assignment. The fire safety education programs conducted in 1990 were:

- o July - Funnerworks project proceeds donated to Alisa Ann Ruch Burn foundation and Eden Burn Unit.
- o September 8 and 9 - Fall Festival, presented Stop, Drop & Roll
- o October 6 - Fire Fair at the Southland Shopping Mall in Hayward, conducted earthquake and fire safety presentations.
- o November 13 - Fire extinguisher demonstration

Fire Investigation:

Fire cause is determined by the officer in charge of a incident and recorded on the fire incident report. When undetermined or suspicious fires are encountered the Deputy Fire Marshal or the Fire Inspector conduct the investigation.

When large or suspicious fires occur supplementary investigation reports are prepared, if warranted, and kept on file. Seventy-seven investigation reports have been prepared since 1985. Summary reports which document the number of fire investigations, arson fires, arrests or convictions are not maintained.

CVFPD does participate in the county arson task force. Records of activities by or with the arson task force are not available.

Fire Prevention Record System

The fire prevention record system is a manual system. Data needed to document and evaluate the fire prevention activities are not readily available.

Hazardous Materials Controls

The Alameda County Environmental Health Department is the administering agency for hazardous materials controls. (See Appendix M)

Fifty-six occupancies have submitted business plans to the County Environmental Health Department. The county has provided the district with a printout of the names and dates that the business licenses were submitted. However, data is not provided which meets the requirements of AB 2185/87 for notification of fire departments of chemical types and quantities. The county is currently in the process of providing computers and software to fire departments through which the Hazardous Materials Business plans will be provided to the fire departments.

All department personnel have received the twenty-four hour Haz Mat First Responder training. Five personnel have been trained as Haz Mat Technicians. The required eight hour per year refresher training has not been implemented as required in SARA Title III, Section 1910.

The county provides a Haz Mat response van. The unit is usually staffed with one person and arrives within 30 minutes to 1 hour after being requested. Personnel on the Haz Mat van are trained to the same level as the firefighters. However, the person frequently has a extensive education in chemicals. This unit does not perform Haz Mat incident control functions. The role of this unit is to identify materials and provide technical assistance to the incident commander.

INCIDENT ACTIVITIES

Incident activities have increased within the CVFPD by 22 percent over the past five years. During this period emergency medical incidents increased by 37 percent. EMS calls accounted for 54 percent of the district's incident activities in 1989/90. This percentage has been gradually increasing from 48 percent in 1985/86. Vehicle accidents though declining account for about 15 percent of the incidents. Vehicle accidents and EMS constitute 69 percent of the district's incident activities. During the past five years structure fires decreased by 31 percent. The five year history of incident activities for the CVFPD is listed in Table 69.

TABLE 69 - CVFPD INCIDENT HISTORY - 1985/86 TO 1989/90

INCIDENT TYPE	1985/86	1986/87	1987/88	1988/89	1989/90	5 YEAR TOTAL
Emergency Medical	1,033	1,070	1,168	1,362	1,416	6,049
Structure Fire	67	60	54	51	51	283
Auto Fire	98	64	53	55	62	332
Grass/brush Fire	50	48	45	25	30	198
Vehicle Accidents	443	387	382	333	322	1,867
Haz Mat Incident	19	21	9	6	5	60
Other Service Calls	412	504	643	726	701	2,986
TOTAL	2,122	2,154	2,354	2,558	2,587	11,775

The CVFPD has responded to 235 incidents outside the district limits during the period of January 1983 and September 1990. Table -- lists the number of calls by type and year. The majority of these responses have been to the unincorporated county areas to the East of the district. These areas include Crow Canyon Road, Eden Canyon Road, Cull Canyon Road, Norris Canyon Road and Palomares Canyon Road. These unincorporated areas of the county are protected by the California Department of Forestry (CDF) from their station at Sunol. These are state responsibility areas in which CDF has responsibility for wildland fire protection. The county has responsibility for structural protection, EMS and rescue services and contracts with CDF for these services. (See section regarding CDF/Sunol) In 1990 CVFPD informally agreed to provide initial response to all incidents those areas to the East of the district until this study is completed. Citizens in these areas have expressed concern regarding the response time from Sunol.

and measuring the travel time. The results of this response survey indicates that the first engine can arrive within five minutes at most of the structures in the district with the exception of those dwellings in canyon areas which have a travel distance from the nearest station of more than two and one half miles.

Emergency Medical Services (EMS)

The CVFPD provides first responder EMS at the Emergency Medical Technician ID level. All suppression division personnel have been trained in early defibrillation procedures during 1991. Alameda County EMS is providing the district with defibrillators. See Appendix L for description of the Alameda County Emergency Medical Services program.

A fire captain has been assigned as the EMS coordinator for the CVFPD. An EMS committee has been formed within the department which consists of one EMT captain and three EMT fire fighters. These personnel have been assigned job functions which include: EMS Coordinator, Assistant EMS Coordinator, EMS Information Officer and EMS Supply Officer. Two of the EMT fire fighters have paramedic experience but are not currently certified as paramedics. The members of the committee participate in EMS organizations including the California Fire Chief's EMS division and the Alameda County first responder liaison committee. Members of the committee assist the EMS coordinator with EMT recertification training and other program management functions, including the updating of EMS procedures and policies.

Heavy Rescue Capability

The district is developing a heavy rescue capability. Most department personnel attended a two day heavy rescue introductory course. Four personnel, including the Training Director are scheduled to attend a Heavy Rescue Systems I class in June, 1991. This "train the trainer" course will enable the district to present this course in house. The district is also planning to obtain a heavy rescue vehicle and equipment to consolidate and expand heavy rescue equipment and capabilities.

Mutual Aid and Automatic Aid

The CVFPD participates in the Alameda County-South Zone mutual aid program in conjunction with Eden Consolidated FPD, Fairview FPD, City of Fremont and City of Hayward.

An automatic aid agreement has been in effect between CVFPD and ECFPD since 1986. Under this agreement both districts provide resources for the initial response to a specified area which consists of areas within both districts. See text of agreement and map in Appendix M.

Automatic and mutual aid incident activities are listed in Table 72.

TABLE 72 - AUTOMATIC AND MUTUAL AID ACTIVITIES 1986/87 TO 1990/91

	86/87		87/88		88/89		89/90		90/91	
	G	R	G	R	G	R	G	R	G	R
	I	E	I	E	I	E	I	E	I	E
	V	C	V	C	V	C	V	C	V	C
	E	D	E	D	E	D	E	D	E	D
	N		N		N		N		N	
EDEN CONSOLIDATED FPD										
Mutual aid	5	0	3	0	1	0	0	0	0	0
Auto aid	53	4	106	0	120	16	103	21	53	12
CDF/SUNOL-Mutual aid	29	0	15	0	15	0	22	0	12	0
HAYWARD-Mutual aid	1	0	1	0	5	0	1	0	2	0
SAN LEANDRO-Mutual aid	1	0	2	0	0	0	0	0	0	0
FREMONT-Mutual aid	0	0	2	0	0	0	0	0	0	0
OAKLAND-Mutual aid	0	0	0	0	5	0	0	0	0	0
OTHER-Mutual aid	0	0	0	0	3	0	1	0	1	0
TOTAL	89	4	129	0	149	16	27	21	68	12

Communications and Dispatch

Dispatching services are provided by the Alameda County Communications Department through their dispatch center located in San Leandro. See Appendix K for a description of the Alameda County Communications (ALCO) Center program.

The district is dispatched by ALCO through the use of five tone and voice pagers and four telephone display units.

The district units have common radio frequencies with all mutual aid agencies.

The district has 16 mobile radios and 23 portable radios. These radios all have the following frequencies:

- o 154.070
- o 154.280
- o 154.265
- o 154.295
- o 154.235

The district uses 154.070 as its primary channel and shares that channel with Eden Consolidated, Fairview, San Leandro and County Fire Patrol.

TRAINING

The training program is managed by the training officer who is assigned full time to this position on a 40 hour week schedule.

New Employee Training

A probationary training program has been developed by the training division. This training is provided or supervised by the company officers to assure that training goals are attained.

An eight week recruit training program is conducted at the San Leandro training center. New employees may attend a program in which other department recruits participate or the course may be given only for CVFPD employees if sufficient personnel are hired at one time.

Skill Maintenance Training

The training officer has developed a three year plan which establishes specific training goals. The training program includes certain mandated training such as: driver training and licensing, Haz Mat first responder training per 29 CFR 1910, EMT I training, and breathing apparatus training. Proficiency standards have not been developed.

The training division is developing a program to meet the requirements of NFPA 1500.

Hazardous Materials Training

The training division is coordinating the delivery of eight hours per year of mandated Haz Mat refresher training as required by 29 CFR - 1910. The ABAG 24 hour, First Responder Operational course is conducted "in-house" for department personnel. Six employees have completed the 280 hour Haz Mat Technician course. All battalion chiefs are scheduled to complete the Haz Mat Scene Manager course in 1991.

Administrative and Management Development

Management training is provided for chief officers through participation in programs outside the department. Funds are provided each year to enable each officer to attend at least one course at the State Fire Academy. Specific educational guidelines have not been adopted.

Training Manual

A department training manual is being developed. The IFSTA manuals are used as the primary guideline for basic manipulative skill development.

Pre-fire Planning

A pre-fire planning program format is being developed. It will be implemented as part of the company fire prevention program which is also being developed.

Training Records

Extensive training records are maintained. However, a manual data system is in use and the data required to analyze the program effectiveness and to assist in program planning are not readily available. The training division has acquired an IBM compatible 386 computer and working to develop training software.

Pre-employment Education/Training Requirements

The pre-employment educational and training requirements are:

- o 18 years of age,
- o Valid California drivers license,
- o Firefighter I certification, and
- o EMT I certification.

Pre-promotional Education and Training Requirements

The pre-promotional requirements are:

- o Engineer - 3 years experience with CVFPD
- o Captain - 5 years experience with CVFPD
- o Fire Inspector - 3 years experience with CVFPD and Fire Prevention IA and 1B.
- o Fire Marshal - 2 years as an inspector with CVFPD
- o Battalion Chief - 2 years as a Capt. with CVFPD, Fire Management I, Command 1A & 1B, Fire Prevention 1A & 1B.
- o Chief - 2 years as Deputy Fire Chief of Battalion Chief, 4 years as a Fire Captain, 2 years may be substituted by an AA in Fire Technology.

WATER SUPPLY

Water supply within the district is provided by the East Bay Municipal Utilities District (EBMUD).

Water supply and fire hydrant requirements have been established for new developments. These requirements are listed in Table 73.

Table 73 - CVFPD Water Supply (fire flow) and Hydrant Requirements

LAND USE	MINIMUM FIRE FLOW (GPM)	MAXIMUM HYDRANT SPACING (FT.)
PARKS AND OPEN SPACE	1,000	800
SINGLE FAMILY DWELLING (RURAL)	1,000	800
SINGLE FAMILY DWELLING (MEDIUM DENSITY)	1,500 - 2,000	300 - 400
SINGLE FAMILY DWELLING (HIGH DENSITY)	2,000	300 - 400
MULTI-FAMILY DWELLINGS	2,500 - 3,000	300
COMMERCIAL	3,500	300

Fire Hydrant Testing and Maintenance

Fire hydrant testing and maintenance is performed by EBMUD. A current ten year flushing program has been canceled due to the drought.

Fire flow testing is not conducted by the fire district.

Acceptance testing of new hydrants is conducted by EBMUD.

Water system maps and records are maintained by EBMUD.

CVFPD conducts plans reviews and designates hydrant locations for new installations. The district conducts visual inspection of hydrants and keeps them clear of obstructions. The district also installs and maintains the blue dot hydrant markers.

FAIRVIEW FIRE PROTECTION DISTRICT

The Fairview Fire Protection District is an independent fire district with five elected members of the Board of Directors which was originally formed in 1938. The district encompasses an area of the approximately four square miles.

The district boundaries are not expected to change over the next ten years with the exception of the possible annexation of a portion of the proposed Rancho Palomares development. This portion of the proposed development is in unincorporated areas and is currently protected by CDF. The district is bounded by the City of Hayward, the CVFPD and unincorporated areas of the county which are protected by CDF. The LAFCO Sphere of influence encompasses most of the current fire district.

The population is projected to increase to 15,000 by the year 2000. The current population of the district is about 10,000. The population increase will result primarily from the proposed Rancho Palomares development

The area served by the district contains residential occupancies with a few commercial and health care facilities which serve the residents. The number and type of occupancies in the district are listed in Table 74.

TABLE 74 - FAIRVIEW FPD - OCCUPANCIES/STRUCTURES BY TYPE

OCCUPANCY TYPE	TOTAL NO.	W/AUTOMATIC SPRINKLERS	W/ SMOKE DETECTORS
Single Family (R-3)	3,206	unk	unk
Apartment (struct.) (R-1)	5	0	unk
Apartment (units) (R-1)	127	0	unk
Commercial (struct.) (B-2)	8	0	8
Health Care (struct.) (I)	16	2	16
Public Assembly (struct.) (A)	5	2	5
Schools (struct.) (E)	2	0	2
Government Bldg. (struct)	1	0	0
Industrial (H)	0		
Total	3,908	4	31



MAP 7 - FAIRVIEW FIRE PROTECTION DISTRICT

● FIRE STATION 1

⊙ PROPOSED FIRE STATION 2

Rancho Palomares Development

The projected future land development within the district consists primarily of the proposed Rancho Palomares development. (See Map 5) If this development proceeds as currently planned the project construction will commence in 1993/94. A fire station and a fire engine will be provided by the developer as part of the project. The following land uses and population increases are anticipated:

LAND USE (1)	ACRES (1)	DWELLING UNITS (1)
Single Family Dwellings	216.79	609
Multi-family Dwellings	42.18	351
Commercial	4.11	N/A
<u>Open Space</u>	<u>315.38</u>	<u>N/A</u>
TOTAL	578.46	960

(1) Rancho Palomares - Specific Plan, Rezone Application by MaKay Soms - March 1986, revised 2/91

It is estimated that at build-out this project will increase the district population by approximately 3,360 persons, based upon an occupancy dwelling rate of 3.5 persons per unit.

Organizational Description

The Fairview FPD is governed by the Board of Directors. The district personnel consist of 32 personnel. Eleven personnel are career employees and twenty-one are volunteers.

Rank	Career	Volunteer	Compensation
Chief	1		\$5,399/mo.
Captain	3		3,302-3,595/mo.
Firefighter	6		2,101-3,013/mo.
Firefighter		21	(2)
Secretary	1		1,200
Total	11	21	

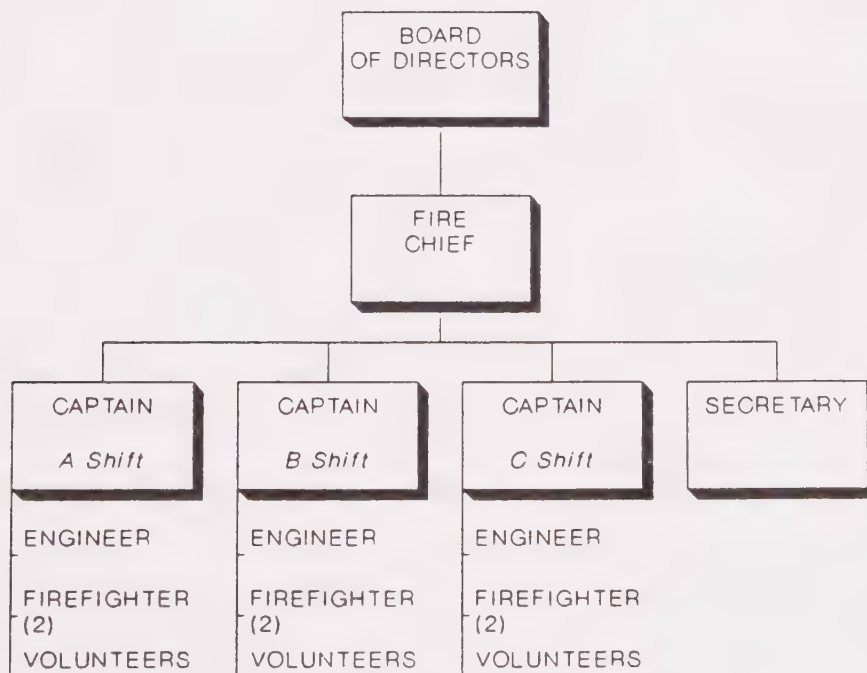
(2) See Table 75

Volunteer (Part-Paid) personnel are compensated at rates as listed in Table 75.

TABLE 75 - VOLUNTEER (PART-PAID) COMPENSATION RATES

ACTIVITY	PAY RATE
Response to alarms	\$3 per incident
Drill participation	\$11 per drill
Week-night standby	\$20 per standby
Week-end night standby	\$20 per standby
Week-end day standby	\$15 per standby

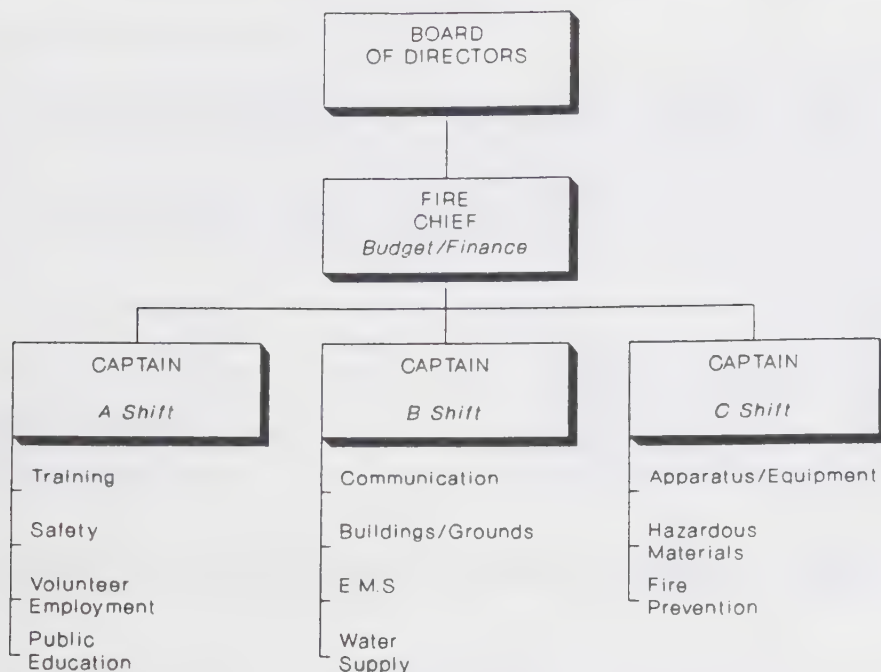
FIGURE 6 - FAIRVIEW FIRE PROTECTION DISTRICT ORGANIZATION



1991

Staff functions are assigned to each captain. These staff functions were developed through a Quality Circles program and are delegated to members of each shift who serve as specialists in various fields. The assignment of staff functions are described in Figure 7. The department specialist assignments are listed in Table 8.

FIGURE 7 - FAIRVIEW FIRE PROTECTION DISTRICT FUNCTION CHART



1991

District personnel are assigned to staff functions and serve as specialists in those fields. These staff assignments are:

- o Training:
 - Captain Strong
 - Captain Queen
 - Captain Urnes
- o Safety:
 - McKelvey
- o Volunteer Employment:
 - Captain Strong
- o Public Education:
 - Captain Strong
 - Montgomery
- o Communications:
 - Captain Queen
 - McKelvey
- o E.M.S.:
 - Captain Queen
 - Montgomery
- o Water Supply:
 - Captain Queen
 - Arteaga
- o Buildings and Grounds
 - Arteaga
- o Fire Prevention
 - Hern
 - Phares
- o Weed Abatement
 - Captain Urnes
 - Hern
 - Phares
- o Apparatus & Equipment
 - Captain Urnes
 - McKelvey
 - Mulvihill
- o Hazardous Materials
 - Captain Urnes
 - Phares

District Staffing Policy and Procedures

The district has a policy of maintaining three personnel on duty as a minimum, although if needed the district will at times reduce the staffing to two personnel. In most cases four personnel are maintained on duty. The three personnel assigned to each shift on a 24 hour schedule are supplemented by a firefighter on a forty-hour week or by Part-Paid personnel.

One firefighter works a forty hour week and is at the station Monday through Friday eight hours per day. Part-Paid department members work preassigned twelve-hour evening or week-end shifts. Part-Paid personnel are assigned to work two twelve hour week day or evening shifts and one nine-hour week end shift per month as a condition of employment. These part-time personnel are not used to maintain minimum staffing. The 40 hour week firefighter fills in for personnel on authorized leave such as vacations or sickleave.

Authorized Leave Usage

The district maintains a very low authorized leave usage of 109 hours per year per person.

TABLE 76 - PERSONNEL LEAVE STATISTICS

YEAR	SICKLEAVE (HRS)	INJURY LEAVE (HRS)	VACATION (HRS)	RETIREMENTS (NO.)	TURNOVER (NO.)
1989/90	2	0	1,500	1	3
1988/89	3	0	1,500	1	1
1987/88	3	0	1,200	0	0
1986/87	2	0	1,200	0	2
1985/86	4	0	1,200	0	3
5 yr. total	14	0	6,000	2	9

The five-year total average usage of authorized leave is 1,202 hours per year for the district and 109 hours per year per person.

Five Year Plan

The district has prepared a five year plan which projects future personnel, capital improvements and equipment replacement requirements including operational and capital cost estimates. This plan projects an increase in staffing of one person per year from 1990/91 to 1994/95. The schedule for these increases are described in Table 77.

TABLE 77 - FFPD PROJECTED STAFFING INCREASES, 1989/90 TO 1994/95

	89/90	90/91	91/92	92/93	93/94	94/95
A shift	3	3	3	4	4	4
B shift	3	3	3	4	4	4
C shift	2	3	3	3	4	4
40 hr. FF	1	1	2	1	1	2
Secretary	.5	.5	.5	.5	.5	1
Chief	1	1	1	1	1	1
Total	10.5	11.5	12.5	13.5	14.5	16

The five-year plan also considers the construction of the Rancho Palomares development which includes the provision of a station and engine. To maintain three personnel at both stations it is proposed that four additional firefighters will be required as shown in Table 78.

TABLE 78 - MINIMUM STAFFING ASSIGNMENTS FOR TWO STATIONS

	STATION 1	STATION 2
A Shift	3	3
B Shift	3	3
C Shift	3	3
Secretary	1	
Chief	1	
Total	11	9

The estimated time devoted to various function per month by the fire chief are:

FUNCTION	HRS./MO.
Consultation with developers and department managers	40
Staff meetings	1
Professional associations	3
Meetings with other departments	2
Total	46

The estimated average number of personnel hours allocated to programs by department personnel per month are described in Table 79.

TABLE 79 - ESTIMATED ALLOCATION OF PERSONNEL HOURS

<u>Program</u>	<u>CAPT.</u>	<u>FF</u>	<u>TOTAL</u>
Apparatus testing & maintenance	10	30	40
Breathing apparatus	2	6	8
Care & maintenance of stations	10	120	130
Dept. officer meetings	3	0	3
Coffee breaks	15	15	30
Incident reports	10	0	10
Performance evaluations/counseling	10	0	10
Special committee meetings	10	10	20
Emergency responses	72	72	144
Fire hose care & maintenance	10	30	40
Fire hydrant testing & maint.	2	6	8
Pre-fire planning	20	20	40
Training:			
o New employee/members	10	30	40
o Skill Maintenance	3	9	12
o Volunteers	20	20	40
o Driver/operator	3	3	6
o Hazardous materials	3	3	6
o Emergency medical	3	3	6
o Physical fitness	10	10	20
Fire code enforcement	0	0	0
Fire safety education	2	2	4
TOTAL HRS	218	386	567

Fire District Funding and Expenditures

Fire district expenditures and revenues for the period of 1986/87 to 1990/91 are listed in Tables 80 and 81.

TABLE 80 - DISTRICT EXPENDITURES 1986/87 TO 1990/91

	1986/87	1987/88	1988/89	1989/90	1990/91
Personnel	\$363,000	\$383,000	\$436,156	\$503,500	\$579,400
Non-personal	156,336	140,874	147,517	211,134	237,070
Capital	19,500	52,786	29,900	53,800	60,930
Total	\$538,836	\$576,660	\$613,573	\$768,434	\$877,400

TABLE 81 - DISTRICT REVENUES 1986/87 TO 1990/91 (1)

Property Taxes	\$335,496	\$356,374	\$425,317	\$490,693	\$614,200
SDAF	204,313	204,313	204,313	204,313	204,313
TOTAL	\$539,809	\$560,687	\$629,630	\$695,006	\$818,513

(1) District revenues do not include funds carried over from previous years.

New construction development fees or a benefit assessment program have not been implemented. However, a development agreement has been negotiated which will provide a new fire station and new fire engine as part of the construction of the Rancho Palomares development.

The district's Proposition 4 expenditure limit was increased by the voters in March of 1989.

Fire District Facility

The district operates one fire station located at 24200 Fairview Avenue. A detailed description of that facility is contained in Table 82.

The location of the existing and proposed second fire station in the Rancho Palomares development are shown on Map 5.

Fire Apparatus

The fire district operates three apparatus, two engines and one patrol (grass/brush) unit. The district also has one pick-up truck and one staff car. For detailed descriptions of apparatus see Tables 85 to 87.

A five-year scheduled replacement plan has been adopted. See Table 83. This schedule is based upon the replacement of engines at 20 years, and patrol units at 15 years. The pick-up and staff car are scheduled for replacement after 6 years.

TABLE 83 - FFPD APPARATUS REPLACEMENT SCHEDULE

Apparatus	Date Purchased	Scheduled Replacement	Mileage
Engine 1	1989	2009	7,600
Engine 2	1984	2004	31,500
Patrol 1	1986	2001	9,200
Pickup	1986	1993	12,300
Sedan	1988	1994	34,000

A scheduled preventive maintenance program has been established for fire apparatus, on-board vehicle equipment and staff vehicles. The preventive maintenance program consists of a comprehensive program which includes annual, semi-annual and tri-annual tests and detailed maintenance. Fire apparatus have not required major repairs. Maintenance costs and downtime are listed in Table 84.

TABLE 84 - FFPD VEHICLE DOWN-TIME AND MAINTENANCE COSTS
1985/86 TO 1989/90

Apparatus	89/90	88/89	87/88	86/87	85/86
<u>Down-time Hrs.</u>					
Engine 1	16	n/a	n/a	n/a	n/a
Engine 2	32	37	28	30	31
Patrol 1	16	21	12	8	n/a
<u>Maintenance (\$)</u>					
Engine 1	960	n/a	n/a	n/a	n/a
Engine 2	1,350	1,290	1,000	970	355
Patrol 1	960	907	321	480	n/a

TABLE 85 - APPARATUS INVENTORY - ENGINE 1

Apparatus number eng. 1 Inventory number: C842 Model/yr. Pierce Arrow
 Type: (engine, truck, etc.) Engine Milage 7510
 Manufacturer: Pierce Manufacturing
 Date purchased 9/89 Yrs. 1st line 01 Yrs. reserve n/a
 Scheduled replacement date 2009
 Engine: Make Detroit Model 8V92Twjac gas () diesel (x)
 Transmission: Make Allison Model MTB 741 Man. () Auto (x)
 Pump: Make Watrous Model CMU Rated Cap. 1500 gpm.
 Primer: Type R Vain Press. relief valve: Type Spring
 Aerial/Snorkel/Squirt: Make _____ Model _____; _____ ft.
 Brakes: Front; Disc (x), Shoe () Size 15 in.
 Rear; Disc (x), Shoe () Size 15 in.
 System; Air (x), Hydrovac ()
 Emergency brake; Type Spring/air
 Steering: Power assist - yes (x) no ()
 Water Tank: Capacity 500 gal., Const: steel (x), fiberglass (), other
 Internally treated with apoxy Date last treated 8/89
 Enclosed cab, yes (x) no (); No. seats w/seat belts 04
 Personnel ride rear tail board, yes () no (x); if yes, w/safety belts ()
 Foam: Proportioner, yes (), no (x); tank no gal.
 Wetting agent: Proportioner, yes (), no (x); tank _____ gal.
 Fire Hose: 4 or 5" 1000 ft.; 3" 0 ft.; 2 1/2" 850 ft.; 1 3/4" 750 ft.
 1 1/2" 200 ft.; 3/4" 200 ft.; Suction hose 0 ft. _____ in
 Preconnects: 250 ft. 2-1/in.; 650 ft. 1-3/4 in.
 Master Stream Appl.: Capacity 1250 gpm.; Preconnected yes (x) no ()
 Breathing Apparatus: No. 04; Type hipressure; Spare Bottles 04
 Special equipment: cellular phone

340
Mobile Radio: Frequencies 154.070, 154.280, 154.265, 154.295, 156.075, 154.235
151.445, 154.650

Portable Radios: No. 02; Frequencies as above

Maintenance history:

Pump test: Date of last test 9/90; Results passed all

Aerial ladder/snorkel: Date last test n/a Results

	89/90	88/89	87/88	86/87	85/86	TOTAL
Downtime (total hrs)	<u>16</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>16</u>
Maintenance (\$)	<u>\$960.00</u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>

List on a all major repairs within the last five years: none

Date	Repair
------	--------

Describe major delays in obtaining repair parts:

n/a

TABLE 86 - APPARATUS INVENTORY - ENGINE 2

Apparatus number Engine 2 Inventory number: CS15 Model/yr. 1984
 Type: (engine, truck, etc.) engine Milage 31500
 Manufacturer: Hendrickson/VanPelt
 Date purchased September 1984 Yrs. 1st line 05 Yrs. reserve 01
 Scheduled replacement date 2004
 Engine: Make Detroit Model 8V71 ta gas () diesel (x)
 Transmission: Make Allison Model HT740 Man. () Auto (x)
 Pump: Make Hale Model QSMF150 Rated Cap. 1500 gpm.
 Primer: Type r. vain Press. relief valve: Type motor governor
 Aerial/Snorkel/Squirt: Make _____ Model _____; _____ ft.
 Brakes: Front; Disc (x), Shoe () Size 12 in.
 Rear; Disc (x), Shoe () Size 12 in.
 System; Air (x), Hydrovac ()
 Emergency brake; Type spring/air
 Steering: Power assist - yes (x) no ()
 Water Tank: Capacity 750 gal., Const: steel (), fiberglass (x), other
 Internally treated with _____ Date last treated _____
 Enclosed cab, yes (x) no (); No. seats w/seat belts 04
 Personnel ride rear tail board, yes () no (x), if yes, w/safety belts ()
 Foam: Proportioner, yes (), no (x); tank n/a gal.
 Wetting agent: Proportioner, yes (x), no (); tank n/a gal.
 Fire Hose: 4 or 5" 1000 ft.; 3" 0 ft.; 2 1/2" 600 ft.; 1 3/4" 650 ft.
 1 1/2" 200 ft.; 3/4" 200 ft.; Suction hose 0 ft. 0 in.
 Preconnects: 650 ft. 1-3/4 in.; _____ ft. _____ in.
 Master Stream Appl.: Capacity 1250 gpm.; Preconnected yes (x) no ()
 Breathing Apparatus: No. 04; Type hi press.; Spare Bottles 04
 Special equipment: _____

3108

Maintenance history:

Pump test: Date of last test 9/90 ; Results passed

Aerial ladder/snorkel: Date last test _____ Results _____

	89/90	88/89	87/88	86/87	85/86	TOTAL
Downtime (total hrs)	<u>32</u>	<u>37</u>	<u>28</u>	<u>30</u>	<u>31</u>	<u>158</u>
Maintenance (\$)	<u>1350</u>	<u>1290</u>	<u>1000</u>	<u>970</u>	<u>355</u>	<u>3965</u>

List on a all major repairs within the last five years:

Date	no major repairs	Repair
1950		
1951		
1952		
1953		
1954		
1955		
1956		
1957		
1958		
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2099		

Describe major delays in obtaining repair parts:

n/a

TABLE 87 - APPARATUS INVENTORY - PATROL 1

Apparatus number Patrol 1 Inventory number: CS18 Model/yr. 1986 F250
 Type: (engine, truck, etc.) Patrol Milage 9205
 Manufacturer: Ford/Western Fire Equipment Co.
 Date purchased 1986 Yrs. 1st line 04 Yrs. reserve 0
 Scheduled replacement date 2001
 Engine: Make Ford Model 460 gas (☒) diesel (☐)
 Transmission: Make Ford Model C-6 Man. (☐) Auto (☒)
 Pump: Make Western Fire Equipment Model 14270 Rated Cap. 30 gpm.
 Primer: Type manual Press. relief valve: Type n/a
 Aerial/Snorkel/Squirt: Make _____ Model _____; _____ft.
 Brakes: Front; Disc (☒), Shoe (☐) Size 9 in.
 Rear; Disc (☒), Shoe (☒) Size _____ in.
 System; Air (☐), Hydrovac (☒)
 Emergency brake; Type Cable shoe
 Steering: Power assist - yes (☒) no (☐)
 Water Tank: Capacity 200 gal., Const: steel (☐), fiberglass (☒), other _____
 Internally treated with _____ Date last treated _____
 Enclosed cab, yes (☒) no (☐); No. seats w/seat belts three
 Personnel ride rear tail board, yes (☐) no (☐); if yes, w/safety belts (☐)
 Foam: Proportioner, yes (☐), no (☒); tank _____ gal.
 Wetting agent: Proportioner, yes (☐), no (☒); tank _____ gal.
 Fire Hose: 4 or 5" _____ft.; 3" _____ft.; 2 1/2" _____ft.; 1 3/4" _____ft.
 1 1/2" 600 ft.; 3/4" 200 ft.; Suction hose 15 ft. 2 in
 Preconnects: 100 ft. 1-1/2 in.; _____ft. _____in.
 Master Stream Appl.: Capacity _____gpm.; Preconnected yes (☐) no (☐)
 Breathing Apparatus: No. 0; Type _____; Spare Bottles _____
 Special equipment: _____

370
Mobile Radio: Frequencies 154.070 154.280 _____

Portable Radios: No. 0; Frequencies _____

Maintenance history:

Pump test: Date of last test n/a; Results _____

Aerial ladder/snorkel: Date last test _____ Results _____

	89/90	88/89	87/88	86/87	85/86	TOTAL
Downtime (total hrs)	<u>16</u>	<u>21</u>	<u>12</u>	<u>8</u>	<u> </u>	<u>57</u>
Maintenance (\$)	<u>960</u>	<u>907</u>	<u>321</u>	<u>480</u>	<u> </u>	<u>2669</u>

List on a all major repairs within the last five years:

Date	Repair
------	--------

none

Describe major delays in obtaining repair parts:

n/a

Fire Prevention

The fire prevention program is managed by one of the shift captains who serves as the fire prevention officer. The responsibilities of this position include: recommend code and policy changes; plan review of tract maps and construction plans; coordination of periodic inspections of existing occupancies; coordination of company inspection program; coordination of pre-fire planning program; and quarterly reports of program activities to the fire chief.

The district has adopted the 1988 Uniform Fire code which include the following new development access standards:

- o Minimum street widths: 40 feet
- o Minimum driveway widths: 16 feet
- o Maximum dead end street lengths, without further requirements: 149 feet
- o Maximum grade of roadways: 15 degrees.
- o Maximum angle of departure: (county engineering standards)
- o Minimum street sign requirements: (county engineering standards)
- o Minimum house number requirements: Must be visible from the street.

An effective working relationship has been established between the district and the County Building and Planning Departments.

Inspection Frequency

The district has established criteria for the periodic inspection of existing occupancies which is:

- o Public Assemblies (A1-A4) - 3 times a year
- o Multi-family (R-1) - 3 times a year
- o Commercial (B-2) - Annually
- o Health Care (I-1, 2, 3) - 3 times a year
- o Schools (E) - 3 times a year

Specific occupancies are assigned to each shift, each quarter by the fire prevention officer.

Inspections conducted over the past five years are listed in Table 88.

TABLE 88 - PERIODIC INSPECTIONS BY TYPE OF OCCUPANCY 1985/86 - 1989/90

Occupancy Type	85/86	86/87	87/88	88/89	89/90
Public Assembly (A)	10	12	12	12	14
Apartments (R-1)	12	14	13	15	14
Commercial (B)	13	12	11	14	10
Health Care (I)	20	17	21	20	20
Educational (E)	9	9	9	9	9
Total	64	64	66	70	67

The total number of inspections conducted by the fire prevention officer and by the engine companies are listed in Table 89.

TABLE 89 - INSPECTIONS, HAZARDS FOUND AND CORRECTED 1985/86 TO 1989/90

Year	Number of Inspections	Hazards Found	Hazards Corrected
<u>Fire Prevention Officer</u>			
1989/90	29	11	8
1988/89	29	13	12
1987/88	30	17	17
1986/87	26	15	14
1985/86	29	17	15
<u>Engine Companies</u>			
1989/90	39	7	7
1988/89	41	15	14
1987/88	36	19	18
1986/87	38	12	15
1985/86	35	15	14

Fire prevention inspection policies and procedures have been developed by the fire prevention officer for the suppression division. Training and support for the suppression division is provided.

A citation program has not been developed. With the high level of compliance, a citation program is not required at this time.

Construction flexibilities are provided to developers when sprinkler systems are installed in structures. These include the increase of road grades from a maximum of 15 percent to a minimum of 20 percent.

Hazardous materials controls required to comply with state and federal regulations are enforced by the county. (See Appendix M)

Fire Safety Education

A shift captain manages the fire safety education program. The public education programs are primarily directed toward school children and include Adopt-A-Classroom, poster contest and fire station open house. The department also participates in a fire prevention fair with other agencies and provide CPR and first aid training to the public.

Fire Prevention Record System

The district has implemented an automated fire prevention record system and is capable of producing the data needed for management of the fire prevention programs.

Fire Investigation

The causes of fires are determined by the officers in charge of incidents. When the cause is undetermined or suspicious, the fire inspector will provide support.

The fire inspector is a certified fire investigator. The incidents of incendiary fires are listed in Table 90. The district is a participating member of the Alameda County Arson Task Force.

TABLE 90 - FFPD INCENDIARY FIRE INCIDENTS 1985/86 TO 1989/90

Year	Incendiary Fires	Arrests	Corrections
89/90	3	0	0
88/89	2	0	0
87/88	n/a	0	0
86/87	n/a	0	0
85/86	n/a	0	0

Hazardous Materials

The fire inspector/fire captain coordinates HAZ MAT programs with the County Health Department. (See Appendix M)

A program has been established for the disposal of residential HAZ MATS by Alameda County and the Ora Loma Sanitation District.

Training

A shift captain manages the training program. The training program includes the maintenance of training standards/certification for all personnel, skill maintenance training, volunteer training, EMS certification, HAZ MAT training, driver training and pre-fire planning.

Volunteer (part-time) Employee Training

A 40-hour pre-employment training academy is completed by all prospective volunteers prior to employment. This includes a final written and manipulative test. The training program for Part-Paid employees consists of:

- o Part-Paid employees will acquire and EMT certificate within the first 12 months of employment.
- o District familiarization must be completed within the first three months of employment (i.e. street test and address test taken and passed)
- o At the end of six months of employment, qualification on the Patrol unit must be completed.
- o Within the first year of employment, qualification on Engine 2 must be completed.
- o Every six months every employee will be evaluated by the Peer Review Board in order to update files with educational efforts, advancements, and training status. The Peer Review Board will be also make needed recommendations for improvement.
- o A minimum of two hours of driver training must be completed each month.
- o Part-Paid employees must continue to maintain EMT and CPR certifications.

Volunteers are required to attend three drills per month. Two drills are scheduled for Saturdays and one for Thursdays. The training coordinator prepares a quarterly training schedule for paid and volunteer personnel.

The training coordinator maintains the automated record system and submits an annual report of training to the fire chief.

Physical Fitness

A physical fitness program has been developed in conjunction with the Ather Sports Injury Clinic in Castro Valley. One hour per shift per employee is devoted to physical fitness. Training guidelines and periodic fitness evaluations are provided. Mandatory standards have not been adopted.

HAZ MAT Training

The required 24 hours of HAZ MAT training has been provided to meet the requirements of 29 CFR. The 8-hour per year refresher training course is also provided to all personnel.

Driver Training

All apparatus can be operated with a Class B license. Two personnel have Class A licenses and one person has a Class B. The remaining 17 personnel will obtain Class B licenses as they renew their current driver's licenses.

Pre-fire Planning

Thirty-two pre-fire plans have been developed. These are reviewed annually by each shift at the rate of eight-per-quarter.

Incident Activities

Incident Response Standards

The standard response of resources to incidents is listed in Table 91.

TABLE 91 - FFPD INCIDENT RESPONSE STANDARDS

<u>Incident Type</u>	<u>Chief</u>	<u>Engine</u>	<u>Patrol</u>
EMS		1	
Structure Fire	1	2	1
Auto Fire		1	
Grass/Brush		1	1
HAZ MAT		1	
Hazardous Conditions		1	

Response time standards for incidents have not been established for the arrival of the first engine or the full assignment. However, the average response time of the first engine is three- to four-minutes. The average time to get the full assignment to a structure fire is 11 minutes. A standard has been established that the first engine will respond out of the station within two minutes of receipt of alarm at the dispatch center on 90% of the incidents.

The total number of incidents to which the district responds has increased by 29 percent between 1985/86 and 1989/90. The frequency of structure, auto and grass fires have continued at a constant rate. EMS incidents have increased by 30 percent during this period. In 1989/90, EMS responses accounted for 64 percent of responses by the district (See Table 92)

TABLE 92 - FFPD INCIDENT ACTIVITIES 1985/86 TO 1989/90

INCIDENT TYPE	85/86	86/87	87/88	88/89	89/90	5 yr. Total
EMS	231	249	247	291	300	1,318
Structure fire	10	11	14	15	13	63
Auto fire	10	11	6	7	15	49
Grass & brush fire	7	9	12	11	9	48
Haz Mat incidents	10	14	10	9	14	57
Hazardous condition	16	17	12	17	21	83
Non-emerg. service	41	40	57	41	50	229
Annual Total	325	351	358	391	422	1,847

The average response of personnel to incidents over the past 5 years are listed in Table 93.

TABLE 93 - FFPD AVERAGE RESPONSE OF PERSONNEL TO INCIDENTS
1985/86 TO 1989/90

Incident Type	85/86	86/87	87/88	88/89	89/90	5-yr. Average
EMS	7	8	7	5	6	6.6
Structure Fire	10	11	11	9	9	10
Auto Fire	7	8	7	5	6	6.6
Grass/Brush	9	10	10	11	10	10.0
HAZ MAT	7	7	8	6	6	6.8
Hazardous Con.	6	9	5	7	5	6.4

The district participates in the Alameda County South Zone mutual aid plan (Appendix N) and the Alameda County Mutual Aid Plan. The district does not currently have an automatic aid agreement with neighboring cities or districts although such a program has been discussed with the City of Hayward for many years. Records of mutual aid activ-

Emergency Medical Services

The district provides first responder services. All personnel (career and volunteer) are trained and certified as Emergency Medical Technicians-1 including certification to provide early defibrillation services. One of the captains serves as the district's EMS coordinator.

Advanced life support and transportation services are provided by a private company under contract with the county. (See Appendix L)

HAZ MAT Incidents

All department personnel have been trained to the First Responder Operations level. The county is currently providing each district a computer and software program which will provide incident scene management information. Technical support in the identification of chemicals is provided by the County HAZ MAT Unit. Technical support in the control of HAZ MAT incidents is available through the mutual aid program. Hayward, San Leandro, Union City and Fremont Fire Departments are currently operating a jointly funded HAZ MAT response team with personnel who are trained and equipped to provide HAZ MAT incident control services. (See Appendix M)

Communications and Dispatch

Dispatch services for the district are provided by the Alameda County Communications Center (ALCO) located on 150th Avenue in San Leandro. The frequencies available to the district are:

Frequency	Fire Apparatus				Portables				Paggers 20 each
	E-1	E-2	D-1	Car 1	1	2	3	4,5&6	
151.445							X		
154.070	X	X	X		X			X	X
154.235				X		X			
154.265				X			X		
154.280	X	X	X			X		X	
154.295								X	
155.440								X	
156. 075					X				

Pagers are provided to all volunteers. These are activated by ALCO to notify volunteers to respond to incidents.

The district pick-up does not have a mobile radio installed.

Water Supply

Water supply for fire protection within the district is provided by the City of Hayward and by the East Bay Municipal Utilities District. The hill area of the district is served by the City of Hayward and EBMUD serves the remainder of the district.

The fire flow and hydrant spacing requirements for new developments has been established. They are:

Land Use	Fire Flow GPM	Hydrant Spacing Feet
Rural Residential (R-3)	500	900
Single-family (R-3)	1,000	300
Multi-family (R-1)	1,500	300
Commercial (B-2)	1,500	300

A minimum water main size of 6 inches has been established for mains serving fire hydrants.

A minimum volume of water storage for rural fire protection is 50,000 gallons.

Hydrant testing and maintenance is provided by EBMUD. Fire flow tests are conducted every five years.

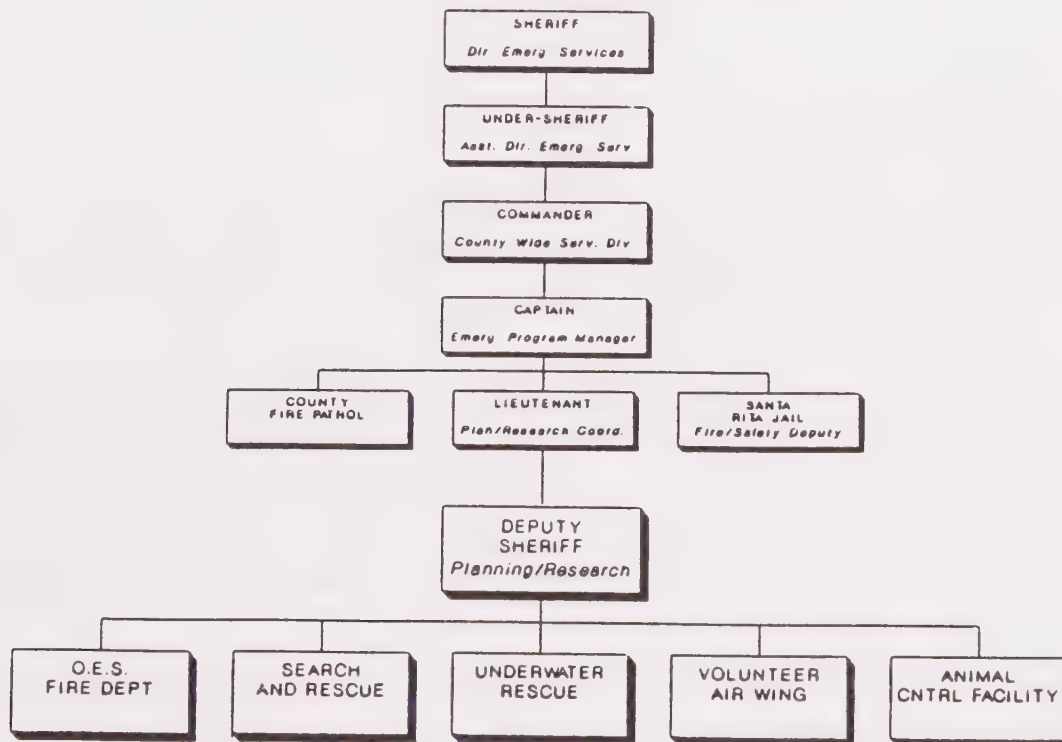
A manual system of hydrant records is maintained by the district.

The FFPD adopted Ordinance 81-03 (8/25/81) which requires that fire hydrants required by new developments be installed and operational prior to the delivery of any combustible material to the job site.

OFFICE OF EMERGENCY SERVICES (O.E.S.) FIRE DEPARTMENT

The O.E.S. Fire Department is a volunteer department which was formed to provide assistance throughout the county in the event of major fire incidents or disasters. The O.E.S. Fire Department has been organized and operated under the Specialized Services Section of the Alameda County Sheriff's Department. The fire department program is coordinated by Deputy Sheriff John Quinn who is responsible for other programs such as Search and Rescue Team, Underwater Rescue Team and Animal Control Shelter. (See Figure 8)

FIGURE 8 - O.E.S. FIRE DEPARTMENT
Organization Chart



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The O.E.S Fire Department does not have a specific area of responsibility but responds to all areas of the county as needed. The department provides fire suppression and rescue support services. The department does not conduct fire prevention, code enforcement or public safety education programs.

Fire Department Organization

The O.E.S Fire Department is staffed by approximately 32 volunteer members which include:

Fire Chief	1
Assistant Chief	1
Captain	2
Lieutenant	3
Firefighter	27

Total	34
-------	----

Department Administration

Pre-employment requirements have been established. The department requires the completion of the Firefighter I Academy or that the candidate be in the process of obtaining FF-I. It is estimated that 90 to 95 percent of personnel are FF-I. EMT-I is not required however an estimate 75 percent of personnel are EMT-Is.

Pre-promotional requirements are: Three years service in good standing, FF-I, EMS first responder and completion of written and oral examinations. Promotions are made upon the joint approval of the fire chief, assistant fire chief and the deputy sheriff who coordinates the program.

A manual record system is maintained to document the department activities.

The volunteers receive no compensation for their training or emergency response activities. The personnel are covered under the county's workers compensation insurance program.

Department Budget and Expenditures

The budget and expenditures of the department could not be identified with the exception of the apparatus maintenance costs. The fire department budget is included in the Field Services budget of the Sheriff's Department and is part of one account which also includes Search and Rescue, Underwater Rescue, and O.E.S. Operations.

Apparatus and Equipment

The department has two engines, two squads and a pickup. The engines and the squad are county owned vehicles. The pickup was donated by the Toyota Motor Company. A water tender previously operated by the department is out of service due to poor operating condition and is currently being stored at the Castro Valley fire station 1. A detailed description of these apparatus is contained in Tables 95 to 98. A scheduled replacement program has not been developed.

TABLE 94 - O.E.S. FIRE DEPARTMENT APPARATUS

APPARATUS	PURCHASE DATE	REPLACEMENT DATE	MILEAGE
Engine 231	1972	n/a	46,000
Engine 232	1975	n/a	45,000
Patrol 231	unk	n/a	33,000
Patrol 232	unk	1990/91	43,000
Pickup	1989	n/a	unk

The department has breathing air equipment and a compressor available. However, these do not meet current OSHA standards.

All apparatus and vehicles have been placed on the county maintenance program. Under this program the county Public Works Department is responsible for the vehicles and leases them to the department for a monthly fee. This fee includes cost of fuel and maintenance. The estimated annual costs of these lease arrangements are:

Apparatus	Monthly Cost	Annual Cost
Engine 231	\$500	\$6,000
Engine 232	500	6,000
Patrol 231	400	4,800
Patrol 232	400	4,800
Toyota pickup	350	4,200
Total	\$2,150	\$25,800

Detailed records of maintenance and downtime are available through the county Public Works Department. These records were available for the

TABLE 95 - ENGINE 231 INVENTORY

Apparatus number: E-231; Inventory number: Model/yr. 1972
Type: Engine Milage:
Manufacturer: L.N. Curtiss/Ford
Date purchased: 1972 Yrs. 1st line: Yrs. reserve:
Scheduled replacement date: No scheduled replacement date established.
Engine: Make: Catapilar/Ford; Model: 1160 gas () diesel (X)
Transmission: Make: Ford Model: Man. (X) Auto ()
Pump: Make: Hale Model: unk Rated Cap. 1,250 gpm.
Primer: Type: unk Press. relief valve: Type: unk
Aerial/Snorkel/Squirt: Make _____ Model _____; _____ft.
Brakes: Front; Disc (), Shoe (X) Size
Rear; Disc (), Shoe (X) Size
System; Air (X), Hydrovac ()
Emergency brake; Type: Spring Type Maxi Brake
Steering: Power assist - yes (X) no ()
Water Tank: Capacity: 300 gal., Const: steel (X), fiberglass (),
other _____
Internally treated with: unk Date last treated: unk
Enclosed cab, yes (X) no (); No. seats w/seat belts: 3
Personnel ride rear tail board, yes () no (X), if yes, w/safety belts
()
Foam: Proportioner, yes (), no (X); tank:
Wetting agent: Proportioner, yes (), no (X); tank:
Fire Hose: 5"-1,000 ; 3"1, 800ft.; 2 1/2"- 150 ft.; 1 3/4" 200 ft.
1 1/2" 300 ft.; 3/4" ft.; Suction hose: n/a
Preconnects: 200 ft. of 1 3/4in.
Master Stream Appl.: Capacity: gpm.; Preconnected yes () no (X)
Breathing Apparatus: No. 3; Type: Scott; Spare Bottles: 3
Special equipment:

Mobile Radio: Frequencies: 154.070, 154.235, 154.280, 155.955

Portable Radios: No.: 1 ; Frequencies (same as mobile radio)

Maintenance history:

Pump test: Date of last test 1987; Results: passed

Aerial ladder/snorkel: Date last test: n/a_____ Results

	1990	1989	1988	1987	1986	TOTAL
Downtime (total hrs.)	1344	250	new	_____	_____	_____
Maintenance (\$) costs	2,500	400	n/a	_____	_____	_____

List on a all major repairs within the last five years:

Date	Repair
5/90	Builtup reingrcement and repair
6/90	TFA unit on transmission replaced
1/88	Transmission replaced

Describe major delays in obtaining repair parts:
None

TABLE 96 - ENGINE 232 INVENTORY

Apparatus number: E-232; Inventory number: Model/yr. 1975
Type: Engine Milage:
Manufacturer: Mack
Date purchased: 1975 Yrs. 1st line: Yrs. reserve:
Scheduled replacement date: No scheduled replacement date established.
Engine: Make: Mack ; Model: 1160 gas () diesel (X)
Transmission: Make: Allison Model: Man. () Auto (X)
Pump: Make: Waterous Model: unk Rated Cap. 1,250 gpm.
Primer: Type: Rotary Vane; Press. relief valve: Type: unk
Aerial/Snorkel/Squirt: Make _____ Model _____; _____ft.
Brakes: Front; Disc (), Shoe (X) Size
Rear; Disc (), Shoe (X) Size
System; Air (X), Hydrovac ()
Emergency brake; Type: Spring Type Maxi Brake
Steering: Power assist - yes (X) no ()
Water Tank: Capacity: 750 gal., Const: steel (X), fiberglass (),
other _____
Internally treated with: unk Date last treated: unk
Enclosed cab, yes (X) no (); No. seats w/seat belts: 5
Personnel ride rear tail board, yes () no (X), if yes, w/safety belts
()
Foam: Proportioner, yes (), no (X); tank:
Wetting agent: Proportioner, yes (), no (X); tank:
Fire Hose: 5"-1,000 ; 3" 1, 800ft.; 2 1/2" ft.; 1 3/4" ft.
1 1/2" 300 ft.; 3/4" ft.; Suction hose: n/a
Preconnects: 300 ft. of 1 3/4in.
Master Stream Appl.: Capacity: gpm.; Preconnected yes () no ()
Breathing Apparatus: No. 3; Type: Scott; Spare Bottles: 3
Special equipment:

Mobile Radio: Frequencies: 154.070, 154.235, 154.280, 155.955

Portable Radios: No.: 1 ; Frequencies (same as mobile radio)

Maintenance history:

Pump test: Date of last test 1987; Results: passed

Aerial ladder/snorkel: Date last test: n/a_____ Results

	1990	1989	1988	1987	1986	TOTAL
Downtime (total hrs.)	1344	250	new	_____	_____	_____
Maintenance (\$) costs	2,500	400	n/a	_____	_____	_____

List on a all major repairs within the last five years:

Date	Repair
5/90	Builtup reingrcement and repair
6/90	TFA unit on transmission replaced
1/88	Transmission replaced

Describe major delays in obtaining repair parts:

None

TABLE 97 - PATROL 231 INVENTORY

Apparatus number: P-231; Inventory number: Model/yr. unk
Type: 4X4 Patrol Milage: 33,000
Manufacturer: Chevrolet
Date purchased: Yrs. 1st line: Yrs. reserve:
Scheduled replacement date: No scheduled replacement date established.
Engine: Make: Chevrolet ; Model: gas (X) diesel ()
Transmission: Make: Model: Man. () Auto (X)
Pump: Make: unk Model: unk Rated Cap. unk gpm.
Primer: Type: ; Press. relief valve: Type: unk
Aerial/Snorkel/Squirt: Make _____ Model _____; _____ft.
Brakes: Front; Disc (), Shoe (X) Size
Rear; Disc (), Shoe (X) Size
System; Air (), Hydrovac (X)
Emergency brake; Type: unk
Steering: Power assist - yes (X) no ()
Water Tank: Capacity: 200 gal., Const: steel (), fiberglass (X),
other _____
Internally treated with: unk Date last treated: New 1990
Enclosed cab, yes (X) no (); No. seats w/seat belts: 3
Personnel ride rear tail board, yes () no (X), if yes, w/safety belts
()
Foam: Proportioner, yes (), no (X); tank:
Wetting agent: Proportioner, yes (), no (X); tank:
Fire Hose: 5"- ; 3" ; 2 1/2" ft.; 1 3/4" ft.
1 1/2" ft.; 1" 100 ft. single jacket hose; Suction
hose: n/a
Preconnects: 300 ft. of 1 3/4in.
Master Stream Appl.: Capacity: 1,000 gpm.; Preconnected yes (X) no ()
Breathing Apparatus: No. 3; Type: Scott; Spare Bottles: 3
Special equipment:

Mobile Radio: Frequencies: 154.070, 154.235, 154.280, 155.955

Portable Radios: No.: 1 ; Frequencies (same as mobile radio)

Maintenance history:

Pump test: Date of last test 1987; Results: passed

Aerial ladder/snorkel: Date last test: n/a_____ Results

	1990	1989	1988	1987	1986	TOTAL
Downtime (total hrs.)	1344	250	new	_____	_____	_____
Maintenance (\$) costs	2,500	400	n/a	_____	_____	_____

List on a all major repairs within the last five years:

Date	Repair
5/90	Builtup reingrcement and repair
6/90	TFA unit on transmission replaced
1/88	Transmission replaced

Describe major delays in obtaining repair parts:
None

TABLE 98 - PATROL 232 INVENTORY

Apparatus number: P-232; Inventory number: Model/yr. unk
Type: 4X4 Patrol Milage: 43,000
Manufacturer: Dodge
Date purchased: Yrs. 1st line: Yrs. reserve:
Scheduled replacement date: No scheduled replacement date established.
Engine: Make: Dodge ; Model: gas (X) diesel ()
Transmission: Make: Model: Man. () Auto (X)
Pump: Make: Hale Model: FP25 Rated Cap.: 250 gpm.
Primer: Type: exhaust ; Press. relief valve: Type: unk
Aerial/Snorkel/Squirt: Make _____ Model _____; _____ ft.
Brakes: Front; Disc (), Shoe (X) Size
Rear; Disc (), Shoe (X) Size
System; Air (), Hydrovac (X)
Emergency brake; Type: unk
Steering: Power assist - yes (X) no ()
Water Tank: Capacity: 300 gal., Const: steel (X), fiberglass (),
other _____
Internally treated with: unk Date last treated: New 1990
Enclosed cab, yes (X) no (); No. seats w/seat belts: 3
Personnel ride rear tail board, yes () no (X), if yes, w/safety belts
()
Foam: Proportioner, yes (), no (X); tank:
Wetting agent: Proportioner, yes (), no (X); tank:
Fire Hose: 5"- ; 3" ; 2 1/2" ft.; 1 3/4" ft.
hose: n/a 1 1/2" 100 ft.; 1" 100 ft. single jacket hose; Suction
Preconnects: ft. of 1 3/4in.
Master Stream Appl.: Capacity: gpm.; Preconnected yes () no ()
Breathing Apparatus: No. ; Type: Scott; Spare Bottles:
Special equipment:

Mobile Radio: Frequencies: 154.070, 154.235, 154.280, 155.955

Portable Radios: No.: 1 ; Frequencies (same as mobile radio)

Maintenance history:

Pump test: Date of last test 1987; Results: passed

Aerial ladder/snorkel: Date last test: n/a_____ Results

	1990	1989	1988	1987	1986	TOTAL
Downtime (total hrs.)	1344	250	new	_____	_____	_____
Maintenance (\$) costs	2,500	400	n/a	_____	_____	_____

List on a all major repairs within the last five years:

Date	Repair
5/90	Builtup reingrcement and repair
6/90	TFA unit on transmission replaced
1/88	Transmission replaced

Describe major delays in obtaining repair parts:
None

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Detailed records of maintenance and downtime are available through the county Public Works Department. These records were available for the 1989/90 fiscal year. These records indicate that the apparatus experienced 2,300 hours of down-time during 1989/90. Sixty-four percent of the 34 incidents of maintenance were unscheduled caused by breakdowns in the field. (See Table 99)

TABLE 99 - APPARATUS MAINTENANCE AND DOWNTIME 1989/90

APPARATUS	SCHEDULED MAINTENANCE (no.)	UNSCHEDULED MAINTENANCE (no.)	DOWNTIME (hrs.)
Engine 231	2	4	379
Engine 232	4	9	883
Patrol 231	2	7	426
Patrol 232	1	5	614
Total	9	25	2,302

The average down-time per apparatus was 575.5 hours per year.

Communications

The department personnel are dispatched by the Alameda County Communications Center. The department has a mobile radio and a portable radio on each engine and patrol. Each of these radios has four frequencies:

- o 154.070
- o 154.280
- o 154.235
- o 155.955

The department can communicate with all fire agencies in the county except those operating exclusively on the 800 mhz frequencies.

Facilities

The department apparatus are housed at two facilities, 2700 Fairmont Drive in San Leandro and the Santa Rita jail facilities. One engine and one patrol are stored at the Fairmont station. This station also houses the Underwater Rescue Team and the Search and Rescue Team apparatus and equipment. Two vehicles with breathing air compressors are available at this facility. These are periodically used to support fire department operations within the county. However, none of this equipment is OSHA approved. Fire departments throughout the county are purchasing OSHA approved high-pressure breathing air units and the use of the current equipment will be reduced.

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One engine and one patrol is stored at the new Santa Rita jail. One engine, one patrol and a command unit which was previously operated by the deputy sheriffs has been assigned to the O.E.S. fire department. These are also used as replacement units when engines are out of service at the County Fire Patrol or at Sunol.

Data regarding the response time of volunteers to staff the apparatus at these facilities are not available. However, it is estimated that the average time to staff a unit is 20 to 25 minutes.

Training

Training is planned and conducted by the training officer who is one of the two captains. An annual training schedule is prepared with specific monthly topics. The lieutenants reinforce the training provided by the training officer by conducting drills for their companies. Department members are expected to attend two drills per month, one conducted by the training officer and one conducted by the company lieutenant.

The Twin Valley training manual and procedures are used as operational standards. The training officer is currently revising the departments training manual. Most of the department personnel have attended a 40 hour firefighter certification course conducted by CDF. Twenty hours per year are devoted to review and maintenance of this certification.

New personnel are assigned to a training company. A lieutenant conducts a basic training academy. New personnel must complete this training course and pass a performance evaluation prior to being released to respond to incidents.

Joint training sessions with other county fire departments are conducted. One training session is scheduled annually with San Leandro /and CDF. Training sessions are not scheduled with Castro Valley, Eden Consolidated, County Fire Patrol, Livermore or Pleasanton.

The Hazardous Materials First Responder (Operations) training (24 hours with 8 hour per year refresher) which is required by state and federal regulations has not been provided.

The state mandated driver training and licensing required by recent changes to the vehicle code are not being provided. Department members are responsible for acquiring the appropriate license. Personnel who do not possess the appropriate license are not permitted to drive the fire apparatus. The department does provide an apparatus and an operator who will accompany a member to take the drivers test.

The state mandated advanced first aid and CPR training and certification are not scheduled and provided by the department. A manual training record system is maintained and records of training are not readily available for planning and analysis.

CALIFORNIA DEPARTMENT OF FORESTRY/SUNOL CONTRACT

The California Department of Forestry (CDF) provides wildland fire protection, structural fire protection, and first responder emergency medical and rescue services in the certain unincorporated areas of the county which are designated as State Responsibility Areas (SRAs). The areas are located primarily in the south-eastern portions of the county. (See Map 6) Structural fire protection within the SRA and all fire protection within the areas designated as Local Responsibility Areas (LRAs) are the responsibility of the county.

CDF has statutory responsibility for wildland fire protection in the unincorporated lands of the county which have been designated as State Responsibility Areas (SRAs) "The primary mission of CDF is to protect and enhance the range, forest and watershed resources of the state in order to maximize the economic, environmental and social benefits derived from these resources. The department will maintain cooperative fire protection contracts and agreements where there are economic and social benefits to the people of the state. The department will ensure that the range, forest, and watershed resources are maintained and enhance, balancing economic, environmental, and social benefits.




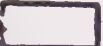

To accomplish this mission, the department has established the following goals concerning fire protection and related services:

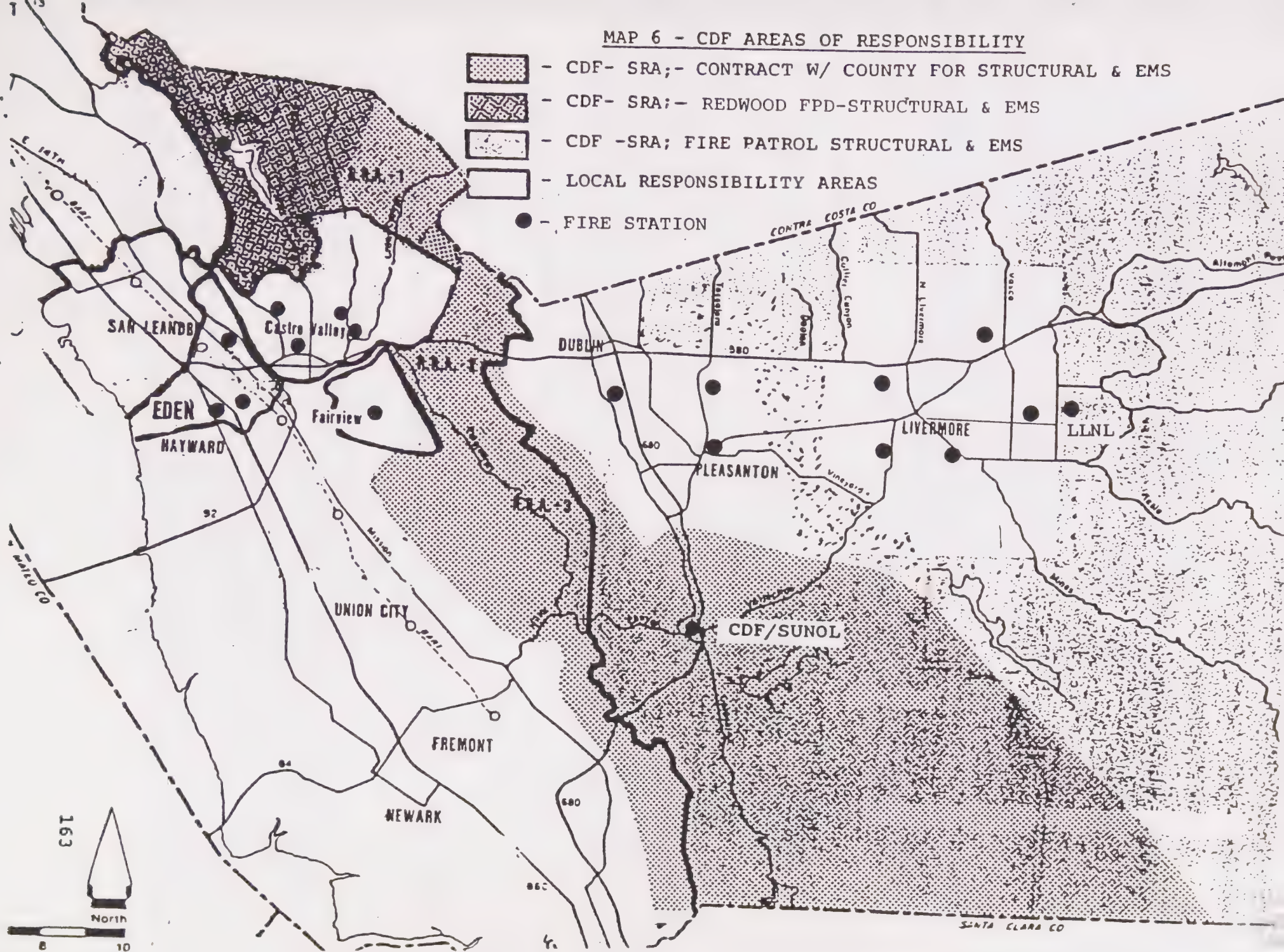
- o To provide comprehensive fire protection services in state responsibility areas. This protection shall include fire prevention, fire protection planning, and fire control.
- o To provide comprehensive fire protection services to federal, state and local agencies under contract or by agreement when there are economic and social benefits to the people of the state.
- o To provide related services such as emergency medical care and other emergency and fire-related services in state responsibility areas.
- o To provide leadership in emergency incident management, mutual aid, and fire safety planning." (1)

The area protected by CDF is primarily range land or wildland areas which have been designated as SRA. The structures within these areas consist primarily of scattered residential dwellings, and a few commercial and industrial structures. The largest concentration of dwellings are found in Kilcare Canyon, with an estimated 200 single family dwellings. There are approximately ten commercial structures in Sunol in addition to the Sunol Golf Club. Other facilities include the Vallecitos Nuclear Research Lab, a water filtration plant and scattered farm buildings.

(1) Chapter 8551.2 C.D.F Mission statement

MAP 6 - CDF AREAS OF RESPONSIBILITY

-  - CDF- SRA;- CONTRACT W/ COUNTY FOR STRUCTURAL & EMS
-  - CDF- SRA;- REDWOOD FPD-STRUCTURAL & EMS
-  - CDF -SRA; FIRE PATROL STRUCTURAL & EMS
-  - LOCAL RESPONSIBILITY AREAS
-  - FIRE STATION



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North

0 10

Response times in the Sunol area range from five minutes to ten minutes for the first engine. Response times in other areas can be thirty to forty five minutes depending upon the location and traffic conditions. Residents in some of these areas have expressed concerns about the extended response times. This is especially true of residents in the Crow Canyon area.

The concept of contracting with local agencies for fire protection allows CDF to provide a continuous level of protection to areas where the only fire protection available is provided by CDF. This protection would not be available in the non-fire season periods. These contracts also assist both agencies by sharing some of the normal overhead costs. Where resources are scarce and the structural fire risk and EMS service demands are light both CDF and the local agencies find mutual advantages in such agreements.

Alameda County/CDF Contract

Under the contract CDF agrees to staff a county engine with two personnel per day and to provide fire protection, emergency medical and rescue services in those areas designated in Map 6. See Appendix O for a copy of the 1990/91 contract.

The county provides funding for three fire engineers, three firefighters and the necessary overtime to provide replacement personnel when authorized leave is used, in order that CDF can maintain a minimum of two personnel on duty at all times. The contract also funds a portion of the battalion chief's salary, 50% of the operating cost of the battalion chief's vehicle, a portion of the utilities cost for the fire station, 25% of a dispatch clerk salary and fringe benefits, and approximately \$4,500 per year for training and medical supplies.

TABLE 100 - CONTRACT COSTS:

<u>Personal Services</u>	1990/91
3 Engineers	\$141,883
3 Firefighters	124,354
0.25 Dispatch clerk	9,005
Battalion Chief (supplement)	4,450
Overtime	42,614
<u>Operating Expenses</u>	
CDF administrative charge	37,807
Medical supplies	2,000
Training	2,500
Utilities (Sunol station)	2,400
Uniform allowance	3,573
Engine maintenance	4,608
50% auto mileage	2,300
<u>Capital Equipment</u>	0
<u>Total</u>	<u>\$377,495</u>

The source of funding for this contract is SDAF. New construction mitigation fees or benefits assessment fee programs have not been developed.

CDF Sunol facility

The CDF/Sunol facility which was opened in 1960, houses CDF Apparatus and personnel in addition to the county engine and the CDF personnel funded by the county.

The station is staffed 12 months per year. The CDF apparatus are staffed twenty-four hours per day during the fire season. During the non-fire (winter) season CDF staffing is reduced state wide and the Sunol station is operated on a forty-hour per week schedule (7:00 a.m. to 6:00 p.m.) with the exception of the county contract personnel.

County Fire Apparatus

The county has provided one engine for operation by CDF. This engine is a 1987 pumper with 750 gallon water tank. It is in good condition although a replacement of the transmission and transfer case was required within one year after it was purchased. (See Table 102)

The engine was delivered to CDF without adequate equipment such as fire hose, nozzles, breathing apparatus and a radio. CDF has obtained used equipment from other CDF facilities to provide a minimum level of equipment. Additional equipment is still needed, especially rescue equipment, due to the frequent occurrence of vehicle accidents and rescues on the highways. Funding has not been provided to purchase the needed equipment which is the responsibility of the county.

A scheduled replacement and funding program for the engine has not been developed.

CDF Apparatus

CDF maintains two Type III engines and one bull dozer at this facility, which are staffed twenty four hours per day during the fire season.

Staffing of County Apparatus

The county engine is staffed with a minimum of two personnel twenty-four hours per day. During the fire season a minimum of six additional personnel are also on duty. During periods outside the fire season there will usually be a third person at the station from 7:00 a.m. to 6:00 pm. on week days. Work-experience students are also available at times to respond to incidents or participate in training. The work-experience students are persons who are attending the local community colleges and are working toward a fire science degree. They provide additional personnel to supplement the career staffing while obtaining job experience.

TABLE 101 - ENGINE 1690 INVENTORY

Apparatus number E-1690 Inventory number: CO #6 Model/yr. 1987
Type: Type I Engine Milage: 25,000
Manufacturer: Westates (International S-1900)
Date purchased: 1987 Yrs. 1st line: 4 Yrs. reserve: 0
Scheduled replacement date: No scheduled replacement date established.
Engine: Make: International Model: DT466 gas () diesel (X)
Transmission: Make: Allison Model: NT-643_ Man. () Auto (X)
Pump: Make: Waterous Model: CM Rated Cap. 1,000 gpm.
Primer: Type: unk Press. relief valve: Type: unk
Aerial/Snorkel/Squirt: Make _____ Model _____; _____ft.
Brakes: Front; Disc (), Shoe (X) Size 5 1/2 in.
Rear; Disc (), Shoe (X) Size 7 in.
System; Air (X), Hydrovac ()
Emergency brake; Type: Bendiz Spring Brake
Steering: Power assist - yes (X) no ()
Water Tank: Capacity: 750 gal., Const: steel (X), fiberglass (),
other _____
Internally treated with: unk Date last treated: unk
Enclosed cab, yes (X) no (); No. seats w/seat belts: 3
Personnel ride rear tail board, yes () no (), if yes, w/safety belts ()
Foam: Proportioner, yes (X), no (); tank: 5 gal.
Wetting agent: Proportioner, yes (X), no (); tank: 5 gal.
Fire Hose: 4 or 5"-n/a ; 3"1, 500ft.; 2 1/2"- 150 ft.; 1 3/4" 850 ft.
1 1/2" 400 ft.; 3/4" 150 ft.; Suction hose: n/a
Preconnects: 150 ft. of 2 1/2 in.; 850 ft. of 1 3/4in.
Master Stream Appl.: Capacity:1,000 gpm.; Preconnected yes (X) no ()
Breathing Apparatus: No. 2; Type: MSA; Spare Bottles: 3
Special equipment: Air chisel, generator, chainsaw, K-12 Rescue Saw

Mobile Radio: Frequencies: Midland 80 channel VHF radio

Portable Radios: No.: none; Frequencies _____

Maintenance history:

Pump test: Date of last test 1987; Results: passed

Aerial ladder/snorkel: Date last test: n/a_____ Results

	1990	1989	1988	1987	1986	TOTAL
Downtime (total hrs.)	1344	250	new	_____	_____	_____
Maintenance (\$) costs	2,500	400	n/a	_____	_____	_____

List on a all major repairs within the last five years:

Date	Repair
5/90	Builtup reinfrcement and repair
6/90	TFA unit on transmission replaced
1/88	Transmission replaced

Describe major delays in obtaining repair parts:

None

Apparatus Maintenance

CDF provides preventive maintenance and repairs according to the standard maintenance procedures established for CDF apparatus. This includes a preventive maintenance inspection of the engine at least annually.

The county funds the apparatus maintenance through the monthly "flat-fee" program. Under this program the county is charged a monthly fee of \$385 (\$4,608/yr.) and in return CDF provides:

- o Fuel, oil, lubrication service and tires,
- o Repairs required to maintain reliable operation of the engine,

Incident Response Activities

Incident response activity data are available only for 1989 and 1990. (See Table 103) EMS and vehicle accidents account for 38% of all incident activities and 83% of all emergency incidents.

TABLE 102 - CDF/SUNOL COUNTY CONTRACT RESPONSES 1989 AND 1990

<u>Incident Type</u>	<u>1989</u>	<u>1990</u>
Emergency Medical Service	185	177
Structure Fire	11	8
Auto Fire	41	30
Grass/brush Fire	23	11
Aircraft crash	1	
Haz Mat Incident	2	6
Hazardous Condition	10	12
<u>Non-emergency services</u>	<u>264</u>	<u>219</u>
Total	535	463

Mutual Aid and Automatic Aid

The CDF Sunol station participates in the Twin Valley Mutual Aid program. However, CDF is not an active participant in the mutual aid training program. Response agreements have been developed with Pleasanton, Castro Valley and East Bay Regional Parks to provide responses to areas where extended travel times from Sunol occur. The agreement

with Castro Valley is a temporary agreement in which Castro Valley will respond into the canyons East of Castro Valley until the recommendations of this study related to those areas are finalized. The agreements with Pleasanton relate to areas on or adjacent to highway 680 which have restricted access due to road patterns or traffic conditions.

Fire Prevention

Fire prevention, code enforcement and public fire safety education provided by CDF personnel consist of the enforcement of the provisions of the Public Resources Code and the "Fire Safe Guidelines" related to the protection of the wildland areas. The County Fire Patrol is responsible for the fire code enforcement within the area protected by CDF.

Training

Training for CDF personnel is provided according to CDF criteria. Primary training functions are performed at the CDF Fire Academy at Ione. Skill maintenance training is provided by company officers at Sunol.

All personnel are receiving training and testing needed to obtain the required Class B drivers license as their licenses expire.

All personnel have not completed the 24 hour First Responder Haz Mat Operations training and certification.

Emergency Medical Services

The CDF personnel assigned to the county engine are trained as EMS First Responders through the standard CDF 40 hour course. It is planned that the county will provide the Sunol station with early-defibrillation equipment and to train personnel within the next 12 months.

Haz Mats Controls and Incident Response

The Haz Mat control programs are managed by the County Environmental Health Departments Hazardous Materials Division. CDF personnel have received training as Haz Mat First Responders (Operations). The county provides a Haz Mat van for response to incidents. The response time, staffing and certification of the Haz Mat personnel are not adequate to meet the needs of Haz Mat incident control. CDF/Sunol relies upon the Haz Mat unit from the City of Fremont fire department or the City of Pleasanton fire department.

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Water Supply

Water supply for fire protection in the area protected by CDF/Sunol is generally deficient. CDF has prepared an inventory of needed water system improvements. CDF has unsuccessfully requested the allocation of funds from the hydrant program (Appendix H). Water supply is for fire protection is provided from engines or water tenders.

SANTA RITA JAIL - FIRE PROTECTION

The Santa Rita Jail has historically maintained a fire suppression force to control fire incidents in the old jail facility. When the new jail facility was constructed in 1988 a high level of fire protection was designed into the buildings. This includes fully sprinklering all structures, the installation of fire detection systems, and the electronic monitoring of all extinguishing and detections systems. In addition a program of periodic testing and maintenance was developed and a deputy was assigned full-time to the testing and maintenance of these systems. A fire station was also constructed at the new facility which has the capacity to house at least five pieces of fire apparatus. There is currently a fire engine, a squad and a staff pickup housed in this facility.

Fire suppression services are provided by the Dougherty Fire Authority under a contractual agreement when is still being developed.

Members of the jail staff have not be trained to operate the fire apparatus. Inmates also have not been trained to perform the fire control functions as part of a institutional fire department. Inmate personnel do perform preventive maintenance and cleaning functions to prevent deterioration of the fire apparatus. The pickup is used by the deputy assigned to the fire and life safety function.

Fire Protection Systems Maintenance and Inspections

A deputy sheriff has been assigned as the fire and safety deputy in order to coordinate with agencies which establish fire protection requirements for jails and to ensure that the fire protection systems are inspected and maintained to assure reliability and compliance with local, state and federal regulations. The program outlined in Table 103 includes maintenance and testing performed by the building maintenance division (BMD) and the fire/life safety deputy (FLSD)

TABLE 103 - FIRE PROTECTION SYSTEM MAINTENANCE AND INSPECTION PROGRAM

EQUIPMENT	STATE & LOCAL REQUIREMENTS	MAINTENANCE & TEST ACTIVITIES BY:
Fire Extinguishers	Service annually	(FLSD)
Standpipe system	Test every 5 yrs.	(BMD)
Risers.	Inspect every 6 mo.	(BMD)
Automatic	Inspect quarterly	(BMD)
Sprinklers	Service every 5 yrs.	(BMD)
Water Flow	Inspect quarterly	(BMD)
Devices	Service every 5 yrs.	(BMD)

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EQUIPMENT	STATE & LOCAL REQUIREMENTS	MAINTENANCE & TEST ACTIVITIES
-----------	-------------------------------	----------------------------------

Supervisory Devices	Test quarterly Service every 5 yrs.	(BMD) (BMD)
Fire Hose in Racks	Unrack & reload annually Test every 3 yrs.	(FLSD) (BMD)
Pre-engineered	Service semi-annually	(BMD)
Fire hydrants	Annual test	(BMD)
Manual Fire Alarm boxes Systems	Test semi-annually	(BMD)
Smoke Detectors	Visual test @ 6 mo. Full test annually	(BMD) (BMD)
Heat Detectors	Test 10% semi-annually	(BMD)
SCBAs	Visual insp. bi-weekly Hydro-test every 3 yrs.	(FLSD) (FLSD)
Annunciators	Test quarterly	(FLSD)
Alarm control Panels	Test electrical system	(BMD)
Trouble signals	Test quarterly	(FLSD)
Fire alarm	Annually activate 1 per circuit	(BMD)

It is the responsibility of the fire and safety deputy to assure that these tests and maintenance procedures are performed.

The FLSD coordinates fire drills which are conducted quarterly on each shift.

The FLSD conducts routine unscheduled inspections of fire protection systems and frequently finds the need for maintenance, repair and replacement of equipment outside the scheduled events.

Record Systems

The fire and life safety deputy maintains a detailed, computerized record of system maintenance and testing as well as fire incidents.

Training

The training conducted is limited to evacuation planning and the maintenance and operation of the automatic fire control systems. No fire fighting training is conducted for deputies or inmates.

Fire Apparatus

Detailed descriptions of the fire apparatus at the jail facility are contained in Tables 104 to 106. The apparatus at the facility consist of:

<u>Apparatus</u>	<u>Date Purchased</u>	<u>Scheduled Replacement</u>	<u>Mileage</u>
Engine P34B	1974	n/a	12,035
Brush unit L34B	1983	n/a	1,848
Pickup, K01D	1986	n/a	21,007

A scheduled replacement program has not been developed for fire apparatus.

A scheduled preventive maintenance program is conducted by the county Public Works vehicle maintenance division. However, there is no evidence that the fire protection components (pump, hose, breathing apparatus, etc.) have been tested and maintained to recognized standards.

The breathing apparatus on the engines are not OSHA approved.

TABLE 104 - ENGINE P34B INVENTORY

Apparatus number E-1 Inventory number: P34B Year/model: 1974
Type: Engine Milage: 12,035
Manufacturer: P.E. Van Pelt
Date purchased: 1974 Yrs. 1st line: 16 Yrs. reserve: 0
Scheduled replacement date: No scheduled replacement date established.
Engine: Make: Caterpillar Model: V 225 gas () diesel (X)
Transmission: Make: unk Model: Man. (X) Auto ()
Pump: Make: Hale Model: QSMD125-4 Rated Cap. 1,250 gpm.
 Primer: Type: unk Press. relief valve: Type: unk
Aerial/Snorkel/Squirt: Make _____ Model _____; _____ft.
Brakes: Front; Disc (), Shoe () Size _____ in.
 Rear; Disc (), Shoe () Size _____ in.
 System; Air (X), Hydrovac ()
 Emergency brake; Type: unk
Steering: Power assist - yes (X) no ()
Water Tank: Capacity: 300 gal., Const: steel (X), fiberglass (),
Internally treated with: unk Date last treated: unk
Enclosed cab, yes (X) no (); No. seats w/seat belts: 2
Personnel ride rear tail board, yes () no (), if yes, w/safety belts ()
Foam: Proportioner, yes (), no (); tank:
Wetting agent: Proportioner, yes (), no (); tank:
Fire Hose: 4 or 5"- 8 ft; 2 1/2" - 2,100ft.;
 1 1/2" 200 ft.; 3/4" 150 ft.; Suction hose: 8 ft.
Preconnects: 200 ft. of 2 1/2 in.; 150 ft. of 3/4in.
Master Stream Appl.: Capacity: ; Preconnected yes () no (X)
Breathing Apparatus: No. 2; Type: unk; Spare Bottles: 2
Special equipment:

TABLE 105 - ENGINE L34B INVENTORY

Apparatus number E-2 Inventory number: L34B Year/model: 1983
Type: Grass/brush squad Milage: 1,848
Manufacturer: General Motors
Date purchased: 1983 Yrs. 1st line: 8 Yrs. reserve: 0
Scheduled replacement date: No scheduled replacement date established.
Engine: Make: Chevrolet Model: CC31003 gas (X) diesel ()
Transmission: Make: unk Model: Man. () Auto (X)
Pump: Make: Wisconsin Model: VH4D Rated Cap.: unk gpm.
Primer: Type: unk Press. relief valve: Type: unk
Aerial/Snorkel/Squirt: Make _____ Model _____; _____ft.
Brakes: Front; Disc (X), Shoe () Size _____ in.
Rear; Disc (X), Shoe () Size _____ in.
System; Air (), Hydrovac ()
Emergency brake; Type: unk
Steering: Power assist - yes () no ()
Water Tank: Capacity: 250 gal., Const: steel (X), fiberglass (),
Internally treated with: unk Date last treated: unk
Enclosed cab, yes (X) no (); No. seats w/seat belts: 2
Personnel ride rear tail board, yes () no (), if yes, w/safety belts ()
Foam: Proportioner, yes (), no (); tank:
Wetting agent: Proportioner, yes (), no (); tank:
Fire Hose: 4 or 5"- _____ ft; 2 1/2" - _____ ft.;
1 1/2" _____ ft.; 3/4" 200 ft.; Suction hose: 8 ft.
Preconnects: 600 ft. of 1 1/2 in.; 400 ft. of 2 1/2 in.
Master Stream Appl.: Capacity: _____; Preconnected yes () no (X)
Breathing Apparatus: No. 1; Type: unk; Spare Bottles: 0
Special equipment:

TABLE 106 - PICKUP K01D INVENTORY

Apparatus number: 3 Inventory number: K01D Year/model: 1986
Type: Pickup/grass unit Milage: 21,000
Manufacturer: Ford
Date purchased: 1986 Yrs. 1st line: 4 Yrs. reserve: 0
Scheduled replacement date: No scheduled replacement date established.
Engine: Make: Ford Model: gas (X) diesel ()
Transmission: Make: unk Model: Man. () Auto ()
Pump: Make: Kohler Model: K181 Rated Cap.: 10 gpm.
Primer: Type: unk Press. relief valve: Type: unk
Aerial/Snorkel/Squirt: Make _____ Model _____; _____ft.
Brakes: Front; Disc (X), Shoe () Size _____ in.
Rear; Disc (X), Shoe () Size _____ in.
System; Air (), Hydrovac ()
Emergency brake; Type: unk
Steering: Power assist - yes (x) no ()
Water Tank: Capacity: 100 gal., Const: steel (X), fiberglass (),
Internally treated with: unk Date last treated: unk
Enclosed cab, yes (X) no (); No. seats w/seat belts: 2
Personnel ride rear tail board, yes () no (), if yes, w/safety belts ()
Foam: Proportioner, yes (), no (); tank:
Wetting agent: Proportioner, yes (), no (); tank:
Fire Hose: 4 or 5"- ft; 2 1/2" - 100 ft.;
1 1/2"- 200ft.; 3/4" 150 ft.; Suction hose: ft.
Preconnects: ft. of 1 1/2 in.; ft. of 2 1/2 in.
Master Stream Appl.: Capacity: ; Preconnected yes () no (X)
Breathing Apparatus: No. 1; Type: unk; Spare Bottles: 0
Special equipment:

EAST BAY REGIONAL PARK DISTRICT

The East Bay Regional Park District consists of fifty-five separate park and recreational facilities in Alameda and Contra Costa Counties. The park district provides first responder EMS, fire prevention, fire suppression and Haz Mat control services within these park lands.

The Redwood Fire Protection District has been formed by the Directors of the East Bay Regional Park District (EBRPD) under the provisions of the California fire district law. The area protected by the fire district encompasses 12,500 acres of park lands and unincorporated county lands. (See Map 6) The areas within the fire district are State Responsibility Areas for wildland fire protection. The fire district is responsible for structural fire prevention, structural fire suppression, first responder EMS and first responder Haz Mats services.

There are approximately 75 to 80 residences within the Northern portion of the fire district and about 10 to 12 homes in the Cull Canyon area of the fire district. These are all in unincorporated county areas.

Alameda County provides \$12,500 per year to EBRPD for the support of the Redwood Fire Protection District under the SDAF program.

Fire District Facilities and Fire Apparatus

The fire district operates from three facilities. The administrative offices are located at 17930 Lake Chabot Road in Castro Valley.

Station 2 is located at the north end of the park on Redwood Road. This facility houses two patrol units and one O.E.S. Type III structural engine. One new Type III engine is on order and one of the patrol units will be replaced in 1991.

Station 3 is located on Cull Canyon Road and houses one Type III engine and one patrol unit. Another engine stored at the facility is out of service and has been scheduled for replacement.

Two EBRPD helicopters are based at the Hayward airport. The helicopters operated by the EBRPD police officers are available for fire control and EMS incidents. Although the helicopters do not have a fire suppression capabilities, they perform effective incident command functions. The helicopters are available for rescue and transportation during EMS incidents as basic life support units. The helicopters are staffed and operated during daylight hours. During the summer months the aircraft are staffed from 8:00 a.m. till dark and during the winter months are staffed from 10:00 a.m. till dark.

Staffing

The fire chief is responsible for fire protection throughout the EBRPD and also serves as the chief of the Redwood Regional Fire Protection District. The fire district staffing includes a total of 67 personnel:

- o 1 fire chief
- o 1 fire marshal
- o 1 career fire captain
- o 5 career firefighters
- o 58 paid-on-call (POC) firefighters
- o 1 secretary

All fire district members are employees of the EBRPD. POC firefighters are compensated at the rate of \$25.00 per hour for off-duty recall, with a minimum of 2 hours for each call.

The fire marshal provides fire prevention services throughout the EBRPD which also includes a Haz Mat control program and fire protection operational planning.

The two stations are staffed each day with a minimum of one career fire captain or firefighter from 10:00 a.m. till 7:00 p.m. Neither of the two stations are staffed on a 24 hour basis. POC personnel who work in areas near the two facilities staff the fire units during the working hours, seven days per week.

During evening hours the units are staffed by off duty career personnel and POC firefighters. Each person has a pager through which dispatching occurs. The response time for the first company during the evening hours averages 20 minutes. One park employee lives in a park facility near station 2 and staffs one of the units when available.

The department personnel have been assigned to four groups of fifteen personnel for off-duty response. One group is on-call for each station at all times. Groups are assigned the on-call duty at one week intervals. These groups are designated as: A, B, C and D. Groups A and C staff station 2 on alternating weeks and Groups B and D staff station 3 on alternating weeks.

One career captain or firefighter and two POC firefighters are assigned to each station during the fire season from 10:00 a.m. to 7:00 p.m. During periods of high fire danger the staffing of the stations is increased by assigning additional personnel to both stations.

Emergency Medical Services

The fire district provides first responder EMS services. All personnel are training as EMS first responders. District personnel have been trained and certified to provide early defibrillation services.

The county has provided the district with three defibrillation units. The EBRPD helicopters are available to support rescue and EMS operations but are approved as air ambulances.

Hazardous Materials Controls

All EBRPD rangers have been certified at the Haz Mat Awareness level (8 hour training). Fire district and park police personnel have been certified at the Haz Mat Operations level (24 hour training). One person is being certified as a Haz Mat Technician and instructor (280 hour training). This person will provide Haz Mat identification and mitigation services and provide the training required to maintain the certification of EBRPD rangers, police officers and fire district personnel.

A Haz Mat van is on order. This unit will be equipped to support hazard identification and risk mitigation.

Each fire station has a supply of booms and pads which are available to control Haz Mat spills or contamination of lakes and water ways. A supply of booms and pads will also be carried on the new Haz Mat van.

Incident Activities

The response history of EBRPD in the unincorporated areas of the county are listed in Table 107.

TABLE 107 - EBRPD INCIDENTS 1985/86 TO 1990/91

<u>Incident Type</u>	<u>1989/90</u>	<u>1988/89</u>	<u>1987/88</u>	<u>1986/87</u>	<u>1985/86</u>
Emergency Medical	80	82	72	78	80
Structure Fire	3	0	4	2	2
Auto Fire	3	3	4	3	2
Grass/brush Fire	5	8	15	9	14
Haz Mat Incident	4				
Hazardous Condition	5	10	24	15	20
Non-emerg. Service	18	32	23	41	21
Total	119	136	142	148	139

Fifty-seven percent of the district responses over the past five years have been emergency medical calls.

The average number of personnel responding to incidents are:

- o EMS - 3
- o Structure fires - 15
- o Grass/brush fires - 15
- o Haz Mats incidents - 3

The average time required to staff apparatus for responses is 20 minutes.

Castro Valley Fire Protection District and the Oakland Fire Department are automatically dispatched on all structure fires adjacent to those agencies boundaries although formal automatic aid agreements have not been developed. CDF is automatically dispatched on all wildland fires within the district.

Fire Suppression Training

All personnel are trained and certified as Firefighter I under the State Board of Fire Services program. An annual training schedule is prepared and training is provided during the months of February to October throughout the EBRPD region. Mutual aid and incident command drills are conducted periodically with neighboring agencies.

Fire Prevention and Fire Safety Education

Fire prevention and fire safety education are being developed by the fire marshal. This position was established less than one year ago and the prevention and public education programs are being finalized. Fire prevention related to wildland fire control is the responsibility of CDF under the Public Resources Code. The EBRPD and CDF cooperate in fire prevention/risk reduction programs.

LAWRENCE LIVERMORE NATIONAL LABORATORIES FIRE DEPARTMENT

The Lawrence Livermore National Laboratories (LLNL) Fire Department is a private fire department operated by the Laboratories for the protection of its facilities in the unincorporated area of eastern Alameda County. The LLNL fire department is an active participant in the Twin Valley mutual aid and training programs. The fire chief serves as the O.E.S. Fire and Rescue Services coordinator for Alameda County.

The two primary facilities operated by LLNL are the main facility which is located at East Avenue and Vascoe Roads to the east of Livermore (fire station 1) and Site 300 which is located on the eastern boundary of Alameda county (fire station 2).

Organizational Description

The LLNL Fire Department is staffed with forty-eight personnel:

Fire Chief	1
Assistant Chief	2
Captain	5
Fire Protection Engineer	7
Lieutenants	6
Firefighters	21
Dispatch supervisor	1
Dispatcher	4
Secretary	1
<hr/>	
Total	48

One assistant chief coordinates the emergency operations and dispatch programs. The other assistant chief coordinates the fire prevention and training programs. (See Organizational Chart)

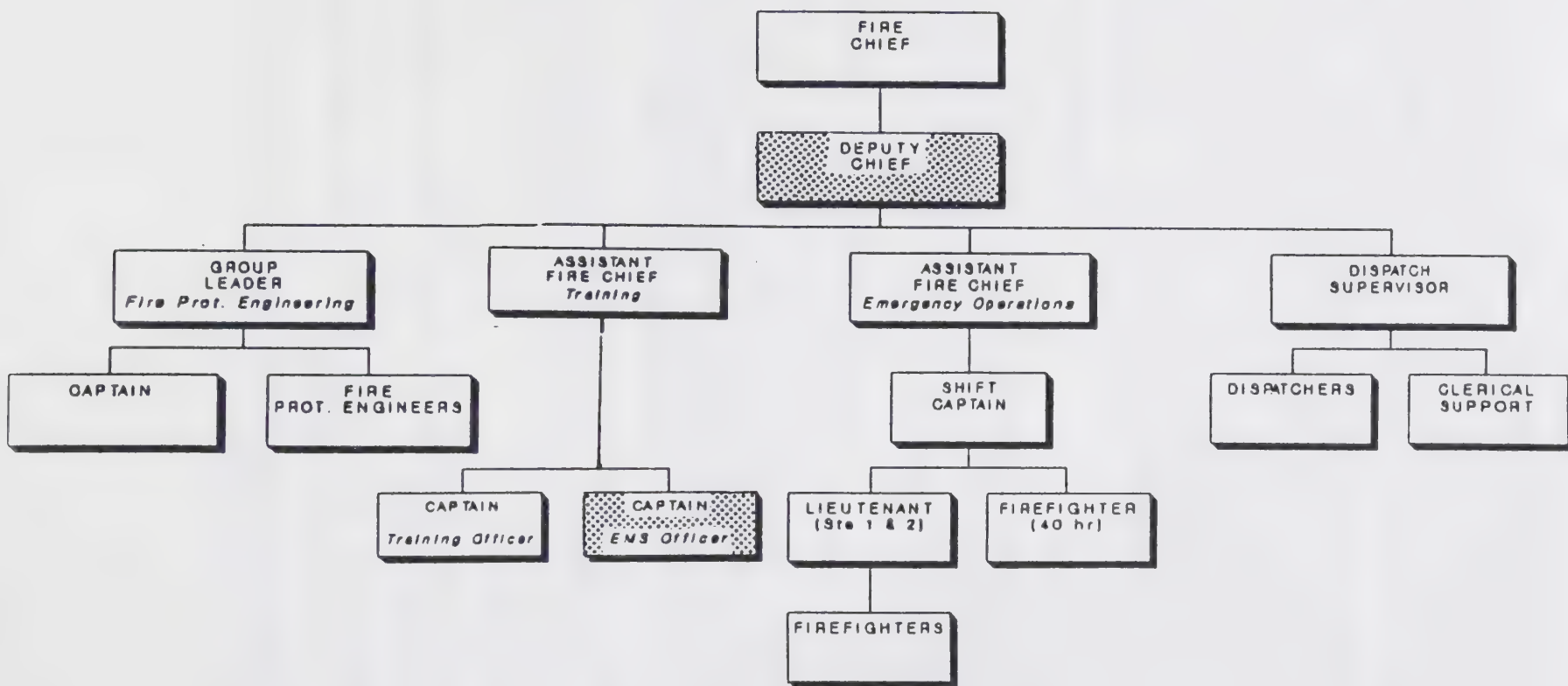
One fire captain is assigned to each of the three shifts in Operations as the shift commanders. The captains also serve as the company officer for one of the engines at station one. A lieutenant is assigned as company officer to the other engine at station 1 and the engine at station 2.

One fire captain is assigned to manage the training program on a forty-hour week schedule.

One fire captain and seven fire protection engineers administer the fire prevention services program.

Dispatch services are provided by four dispatchers under the direction of a supervising dispatcher.

LLNL ORGANIZATION CHART



Position Pending

Fire Department Facilities and Equipment

The fire department operates from two facilities: fire station 1 is located at the main plant in Livermore and station 2 is at Site 300. The fire apparatus located at these facilities are:

LLNL MAIN FACILITY

SITE 300

Fire Station #1:

- o One 1500 gpm pumper
- o One 1250 gpm pumper
- o One 1000 gpm 4WD pumper
- o One 1000 gpm O.E.S pumper
- o One 110 ft. aerial/quint
- o One Patrol unit, 4WD w/ 200 gal. tank and skid mounted pump.
- o Two Type I modular ambulances
- o One Special Services (Haz Mat and breathing air) unit.
- o Three staff/command vehicles
- o One crash/rescue unit (Livermore Airport)

Fire Station #2

- o One 1000 gpm pumper
- o One Patrol unit, 4WD w/200 gal. tank/pump.
- o One ambulance

Fire Department Staffing and Work Schedules

The department maintains a minimum of nine personnel on duty. Six of these personnel operate two apparatus at station 1. Three personnel operate one unit at Site 300. The current minimum staffing of apparatus is 3 personnel. It is anticipated that the minimum staffing will be raised to 5 personnel per apparatus within the next year. Personnel assignments are rotated between station 1 and station 2 every six months.

A chief officer is on duty at station 1 each week day and on call during evenings, weekends and holidays. The fire prevention captain, fire protection engineers and the training captain also work 40 hour schedules.

Personnel Training and Certification

Pre-employment requirements have been established. All new employees must possess certifications as Firefighter I and EMT-IA.

New firefighters must become certified as Driver/Operator-I within the first year. Firefighters must be certified as Driver/Operator-II and Haz Mat First Responder(Operations) within the second year, and Firefighter III (NFPA) within the third year.

There is a pre-promotional requirement of certification as a Fire Officer-I for the position of lieutenant. The pre-promotional re-

quirement for captain includes Fire Officer-I. Fire Officer II certification must be attained within one year and chief officer certification within 2 years. The pre-promotional requirement for chief officer is certification as a chief officer.

Pre-employment and pre-promotional certifications are based upon the State Board of Fire Services certification program except Firefighter III which is not available through the state program.

Chief officers are expected to participate in management skill maintenance training and development including fire management courses conducted at the State Fire Academy at Asilomar.

Skill maintenance training for all department personnel is conducted according to a two year training schedule. Training sessions of two hours per shift are conducted. The training is scheduled and evaluated with the assistance of a computerized training record system.

The department has developed and maintains a detailed training manual to meet the routine and special skill training required.

Skill maintenance testing is conducted annually through written and manipulative operations testing for all personnel in the Operations section. This testing includes driver/operator functions, fire control operations, use of tools and equipment and Haz Mat control procedures.

One of the goals of the training program is to certify and maintain all personnel at the Haz Mat Technician level. Eight personnel are currently certified as Technicians. It is also the goal to certify all officers at the Specialist/Incident Commander level.

The department participates in the Twin Valley training program in which all participants in the Twin Valley Mutual Aid program meet weekly (every Thursday) to conduct multiple agency operational training.

A Twin Valley training manual has been developed for use by all members of the mutual aid program. LLNL was a major contributor to the development of that manual.

A joint testing and hiring program has been developed between the Twin Valley fire departments, including the San Ramon Valley Fire Protection District in Contra Costa County. LLNL is a participant in that program.

Communications and Dispatching

The LLNL fire department operates on radio frequencies which are compatible with all neighboring fire departments. The department provides dispatch services for the department operations and also

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dispatches county fire units under O.E.S. operations as county fire coordinator, such as the recent earthquake response to the Cypress structure collapse incident.

There are ongoing discussions regarding the possibility of LLNL providing dispatch services for all fire agencies in the Twin Valley area to upgrade services, enhance coordination between agencies and to correct deficiencies in the current systems operated by law enforcement agencies.

Incident Response Activities

The LLNL fire department responds to approximately 2,000 incidents per year. Approximately 200 of these are EMS call and 800 are other emergencies such as fires, Haz Mats, etc. Approximately, 75 incidents per year are mutual aid or automatic aid incidents. The remaining 1,000 calls per year are non-emergency hazardous conditions incidents, standbys with the crash truck at the Livermore airport, etc.

The City of Livermore and LLNL have implemented an automatic aid program in which both agencies jointly respond to incidents within specified areas in each agency as part of the first alarm assignment.

LLNL will respond to incidents in the unincorporated areas of the county to which they have direct access with significantly reduced response times than County Fire Patrol or CDF. These responses are considered to be a part of the Twin Valley Mutual Aid program although LLNL may frequently arrive prior to the responsible agency.

LLNL maintains a crash/rescue vehicle at the Livermore airport. The LLNL fire department staffs the crash truck and provides standby coverage during operations of LLNL aircraft. LLNL also make the crash/rescue vehicle available to the Livermore fire department in the event of a crash/rescue incident which does not involve LLNL aircraft.

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APPENDIX A
1985 UNIFORM FIRE CODE

This 1985 Uniform Fire Code (UFC) is the current code which has been adopted by the county board of supervisors and is applicable to all districts unless they have adopted the current 1988 UFC.

CHAPTER 2 - PREVENTION OF FIRES

ARTICLE 1

PREVENTION OF FIRES

3-13.1 Chapter 2 of Title 3 of the Alameda County Ordinance Code is hereby repealed.

3-13.2 Chapter 2 is added to Title 3 of the Alameda County Ordinance Code to read as follows:

(NOTE: All section numbers in remainder of Chapter 2 refer to the 1985 Edition of the Uniform Fire Code).

UNIFORM FIRE CODE

There is hereby adopted that certain code known as the Uniform Fire Code, including appendix I-C (Stairway Identification), II-A (Hazardous Fire Areas), II-B (Flammable Liquid Tanks Subject to Flooding), II-C (Marinas), II-D (Rifle Ranges), III-B (Basement Pipe Inlets), IV-A (Interior Floor Finishes), and V-A (Recognized Standards) recommended by the Western Fire Chiefs Association and the International Conference of Building Officials being particularly the 1985 edition thereof and whole thereof, save and except such portions as are hereinafter deleted, modified, or amended. Three (3) copies of said Code are on file with the Clerk of the Board of Supervisors.

The following sections shall constitute the deletions, modifications, amendments or additions to the Uniform Fire Code:

Section 1-101 of Article 1 (Administration) of the Uniform Fire Code is amended to read:

Section 1-101 Title.

This chapter shall be known as the "County of Alameda Fire Code" and may be cited as such.

Section 2.101, 2-302 and 2-303(a) of Article 2 (Organization, Authority, Duties and Procedures) of the Uniform Fire Code are amended to read:

Section 2-101 Responsibility for Enforcement.

(a) It shall be the duty of the County Fire Warden and the local fire chiefs to enforce the various provisions of this Code and any subsequent ordinances amending the same and all other ordinances of the Board of Supervisors and laws of the State of California within their respective jurisdictions pertaining to:

1. The prevention of fires.
2. The suppression or extinguishing of dangerous or hazardous fires.
3. The storage, use and handling of explosive, flammable, combustible, toxic, corrosive and other hazardous gaseous, solid and liquid materials as regulated in this Code.
4. The installation and maintenance of automatic, manual, and other private fire alarm systems and fire-extinguishing equipment.
5. The maintenance and regulation of fire escapes.
6. The maintenance of fire protection and the elimination of fire hazards on land and in buildings, structures, and other property including those under construction.
7. The means and adequacy of each exit in the event of fire from factories, schools, hotels, lodging houses, asylums, hospitals, churches, halls, theaters, amphitheatres and all other places in which people work, live or congregate from time to time for any purpose.

8. The investigation of the cause, origin and circumstances of fire.

- (b) Whenever any subject regulated in this Code is also regulated by Title 7, Alameda County Ordinance Code, the provisions of this Code which are applicable to new construction, alteration or repair shall be enforced by the chief and the Alameda County Building Official if a permit is required for such new construction, alteration or repair by Title 7, Alameda County Ordinance Code.
- (c) If there is a conflict between the enforcement of this Code by the County Fire Warden or local fire chiefs and the Building Official or between this Code and Title 7, the more restrictive requirements shall apply.

Section 2.302 Appeals.

- (a) In order to determine the suitability of alternate materials and types of construction other than those normally permitted by this Code or approved by the Alameda County Building Official and the fire chief, there is created a Board of Appeals. Upon receipt of an appeal in writing the fire chief shall request the appointment by the Board of Supervisors of a Board of Appeals consisting of five (5) members qualified by experience and training to pass upon matters pertaining to the subject matter of the appeal, and to serve until disposition of the appeal. The decision of the Board of Appeals shall be final. The fire chief shall be an ex officio member of the Board of Appeals and shall act as secretary. The Board of Appeals shall adopt reasonable rules and regulations for conducting its hearings and investigations.
- (b) Whenever the fire chief shall disapprove an application or refuse to grant a permit applied for, or when it is claimed that the provisions of this Code do not apply or that the true intent and meaning of the Code have been misconstrued or wrongly interpreted, the applicant may appeal from the decision of the fire chief to the governing body within 15 days from the date of the decision being appealed.

Section 2.303(a) Uniform Fire Code Standards.

The Uniform Fire Code Standards referenced in this code are those standards contained in the Uniform Fire Code Standards, 1985 edition, published by the Western Fire Chiefs Association and the International Conference of Building Officials listed below. The Uniform Building Code Standards published by the International Conference of Building Officials and referenced by this code are hereby declared to be part of this code as if set forth in full herein, except Uniform Fire Code Standard 10-1 and 10-2 which are deleted.

Sections 3.101 and 3.102 are amended, and Sections 3.100 and 3.105 are added to Article-3 (Violations, Penalties and Compliance) of the Uniform Fire Code to read:

Section 3.100 Violation and Penalties.

- (a) Any person, firm, corporation or association violating or causing, or permitting to be violated any of the provisions of the County of Alameda Fire Code shall be deemed guilty of an infraction unless such violation is specified as a misdemeanor.
- (b) Any person, firm, corporation or association convicted of a misdemeanor under the provisions of this Code shall be subject to a fine, or imprisonment or both not to exceed the limits set forth in California Penal Code Section 19.
- (c) Any person, firm, corporation or association convicted of an infraction under the provisions of this Code shall be punishable upon a first conviction by a fine of not more than one hundred dollars (\$100), and for a second conviction within a period of one year by a fine of not more than two hundred dollars (\$200), and for a third or any subsequent conviction within a one year period by a fine of not more than five hundred dollars (\$500). Any violation beyond the third conviction within a one year period may be charged by the District Attorney as a misdemeanor and the penalty for conviction of the same shall be subject to a fine, or imprisonment or both not to exceed the limits set forth in California Penal Code Section 19.
- (d) In addition to the foregoing penalties, any condition caused or permitted to exist in violation of any of the provisions of this Code shall be deemed a public nuisance and may be abated as such.
- (e) Each person, firm, corporation or association shall be guilty of a separate offense for each and every day during any portion of which any violation of any provision of this Code is committed, continued or permitted by them and shall be punishable accordingly.
- (f) The fire chief and his authorized representatives may make arrests or issue citations for any violation of this Code, or any other Ordinance of the County of Alameda and laws of the State of California pertaining to fire prevention and protection.

Section 3.101(a) Unlawful Continuance of Fire Hazard.

Any person, firm, corporation or association operating or maintaining any occupancy, premises or vehicle subject to this Code shall not permit any fire hazard to exist on premises under his control.

Section 3.101(b) Failure to Comply - Misdemeanor.

Any person, firm, corporation or association operating or maintaining any occupancy, premises or vehicle subject to this Code who shall fail to take immediate action to abate a fire hazard or comply with an order or notice when ordered or notified to do so by the chief or his authorized representative shall be guilty of a misdemeanor.

Section 3.102 Compliance with Order or Notice.

In cases of extreme danger to persons or property immediate compliance shall be required, and/or the chief may remove or cause to be removed the hazard at the expense of the responsible party. If the building or other premises is owned by one person and occupied by another, under lease or otherwise, and the order or notice requires additions or changes in the building or premises such as would immediately become real estate and be the property of the owner of the building or premises, such order or notice shall be complied with by the owner unless the owner and occupant have otherwise agreed between themselves, in which event the occupant shall comply.

Section 3.105 Administrative Abatement.

The provisions of this Code may be enforced pursuant to the provisions of Chapter 7 of Title 7 of the Alameda County Ordinance Code. However, where the fire district or department is not governed by the Board of Supervisors, the term "Board of Supervisors" as used in said Chapter and Title shall mean the governing body of said district or department.

Sections 4.102(d) and 4.108 are added to Article 4 (Permits) of the Uniform Fire Code to read:

Section 4.102(d) Rules and Conditions.

The permit issued may be subject to such reasonable conditions or rules as may be necessary to protect the health, safety and welfare of the people and their property.

Section 4.108 Establish Fees.

The governing body may by resolution establish fees for permits issued under the authority of this Code in all cases where permit fees have not been established hereunder.

Section 9.103, 9.108, 9.109 and 9.115 define or redefine the following terms:

Apartment House Garage; Fire Chief; Fire Marshal; Garage and Motor Vehicle Establishment in Article 9.

(Definitions) of the Uniform Fire Code to read:

Section 9.103 Apartment House Garage.

Apartment house garage shall mean any building or room attached to, maintained or conducted in connection with any apartment house which building or room is used, built or designed for the housing of motor vehicles belonging to the tenants of such apartment house.

Section 9.108 Fire Chief.

Fire Chief shall mean and include the County Fire Warden or the chief of any established fire protection district, fire department or fire fighting organization, organized under the provisions of the Government Code, the Health and Safety Code or the Public Resources Code of the State of California or his designated representative.

The term "Chief" or "Chief of the Fire Department" as noted in Section 9.105 shall mean the same as Fire Chief.

Fire Marshal. Fire Marshal is the chief of the Bureau of Fire Prevention.

Section 9.109 Garage.

Garage shall mean any building or portion thereof in which motor vehicles are stored, repaired or kept.

Section 9.115 Motor Vehicle Establishment.

Motor vehicle establishment includes any private, public or commercial garage or any automobile service station, parking station or other business place where services of any kind are rendered for hire to motor vehicles, or where motor vehicles are rented or hired by the public, or where they are kept for any purpose whatsoever or more than four (4) motor vehicles in which flammable liquids are placed or maintained.

Section 10.207(b), 10.301(a), 10.301(e), 10.302(a) and 10.309 are amended, Section 10.306 is deleted; and Section 10.207(m), 10.207 (n) and 10.403 are added to Article 10 (General Provisions) of the Uniform Fire Code to read:

Section 10.207(b) Access Roadways.

- (1) Except for Group R, Division 3 and Group M occupancies, fire access roads shall be required for every building hereafter constructed when any portion of any exterior wall of the first and second story is located more than 150 feet and/or the third story is more than 200 feet from fire department vehicle access. If the building is greater than two stories in height, the fire access road shall also run within 40 feet along at least one side of the building.
 - (2) Fire access roads for Group R, Division 3 and Group M occupancies hereafter constructed shall be provided when any portion of an exterior wall of the first story is located more than 150 feet from fire department vehicle access.
- Exception:
- (a) When there are not more than two Group R, Division 3 or M occupancies as defined in the Building Code, the requirement of this Section may be modified when, in the opinion of the chief, fire fighting or rescue operations would not be impaired.
 - (b) When conditions prevent the installation of an approved fire apparatus access road, the chief may permit the installation of a fire protection system or systems in lieu of access road, provided the system or systems are not otherwise required by this or any other code.
- (3) Access roadways for existing buildings shall be provided as determined by the chief in accordance with Section 1.103 and 2.301 of this Code..

Section 10.207(m)

The Chief may require, remove or cause to be removed any obstruction of a fire access road including the towing of vehicles at the expense of the responsible party.

Section 10.207(n)

All fire access roadways, whether public or privately owned, are designated as Fire Lanes.

Section 10.301(a) Fire Appliances.

The chief shall designate the type and number of fire appliances and systems to be installed and maintained in and upon all buildings and premises in the jurisdiction other than owner-occupied private dwellings. This shall be done according to the relative severity of probable fire, including the rapidity with which it may spread and the degree of life and property hazard present. Such appliances and systems shall be of a type suitable for the probable class of fire associated with such building or premises and shall have approval of the chief.

Portable fire extinguishers shall be in accordance with Title 19, California Administrative Code.

Section 10.301(e) Plans, Specifications, Approval and Testing.

- (1) All fire alarm systems, fire hydrant systems, fire extinguishing systems (including automatic sprinklers), wet and dry standpipe, basement inlet pipes and other fire protection systems and pertinents thereto shall meet the approval of the fire department as to installation and location and shall be subject to such periodic tests as required by the chief.
- (2) Plans and specifications, including building plans and site plans, as required by the chief, shall be submitted to the fire department for review and approval prior to construction or issuance of a building permit.
- (3) Fire department approval of such plans shall be void after 90 days if a building permit is not issued within such time or if the building permit becomes invalid.

- (4) Fire department approval of such plans shall not be construed to permit any violation of this Code and all such approvals are subject to final field inspection.
- (5) Any permitted deviations of this Code shall be specifically noted as such on the plans and such deviations must be requested in writing as noted in Section 2.301 of this Code.
- (6) The Building Official shall not issue a certificate of occupancy for any building until the fire department has given approval for such.
- (7) The chief may require plans and specifications to be reviewed by a qualified person meeting the approval of the chief at the expense of the responsible party. Such persons may be required to be California Certified Fire Protection Engineers.

Section 10.302(a) Maintenance, General.

All sprinkler systems, fire hydrant systems, standpipe systems, fire alarm systems, portable fire extinguishers, smoke and heat ventilators, smoke removal systems and other fire protective or extinguishing systems or appliances shall be maintained in an operative condition at all times and shall be replaced or repaired where defective. Fire protective or extinguishing systems coverage, spacing and specifications shall be maintained in accordance with recognized standards at all times. Such systems shall be extended, altered or augmented as necessary to maintain and continue protection whenever any building so equipped is altered, remodeled or added to. All addition, repairs, alterations and servicing shall be in accordance with recognized standards.

Section 10.309 Sprinkler System Alarms.

All automatic sprinkler systems with 100 heads or more and all required sprinkler systems shall be supervised by an approved central, proprietary or remote station service.

Exception:

- (1) Isolated specialty systems such as spray paint booth systems or isolated installations in closets and storage spaces with 20 heads or less.
- (2) Residential sprinkler systems for single family dwellings, duplexes and triplexes.

Section 10.403 Integrity of Walls, Ceilings and Partitions.

All walls, ceilings and partitions whether fire resistive or not and whether required or not shall be maintained in good repair so as not to increase the spread of fire more than normally expected from such walls, ceilings and partitions.

Section 11.111 is amended, and Sections 11.117, 11.201(e), 11.204 (b), and 11.416 are added to Article 11 (General Precautions Against Fire) of the Uniform Fire Code to read:

Section 11.111 Chimney Spark Arresters.

Each chimney used in conjunction with any fireplace or any heating appliance in which solid or liquid fuel is used, upon any cabin, house, hotel, building or structure located within 200 feet of any mountainous, brush or forest covered land or land covered with flammable material or structure with an exterior combustible roof shall be maintained with a spark arrester as required for incinerators.

Section 11.117 Bay Area Air Quality Management District.

Requirements of the Bay Area Air Quality Management District shall be complied with as a condition to the issuance and use of a burn permit.

Section 11.201(e) Commercial Dumpsters.

Commercial dumpsters and containers shall not be overloaded. Such containers shall be kept with their lids closed. The chief may require such containers to be locked shut when unattended.

Section 11.204(b) Exterior Awnings.

All exterior awnings connected or adjacent to buildings shall be made either from fabric which has been flame resistant treated with an approved exterior chemical process by an approved application concern, or from inherently flame resistant fabric approved and listed by the State Fire Marshal for exterior use.

Certificates of flame resistance or other documentation acceptable to the chief shall be available on the premises to affirm the flame resistance of all fabrics and materials used as part of exterior awnings.

Section 11.416 Fire Damaged Property.

The owner, occupant or other person having under his control any property or materials on a property damaged by fire shall secure the property either by boarding up all openings fencing, barricading or other appropriate measures.

Within thirty (30) days after written notice to do so has been served, all debris and/or damaged materials shall be removed from the property and proof furnished that contractual arrangements have been made for demolition, replacements or repair of all fire damaged structures remaining on the property involved in the fire with a time frame approved by the chief.

Section 12.106(e) of Article 12 (Maintenance of Exit Ways of the Uniform Fire Code is amended to read:

Section 12.106(e) Stairway Numbering System.

An approved sign shall be located at each floor level landing in all enclosed stairways of buildings three or more stories in height. The sign shall indicate the floor level, the terminus of the top and bottom of the stairway and the identification of the stairway. The sign shall be located approximately five (5) feet above the floor landing in a position which is readily visible when the door is open or closed. See Appendix I-C.

Article 14 (Fire Alarm Systems) is added to the Uniform Fire Code to read:

Section 14.101 Scope.

This Article governs the requirements for the installation, use and maintenance of fire alarm systems in all occupancies as specified herein.

Section 14.102 Purpose.

The purpose of this Article is to provide a reasonable degree of safety through early warning of a fire emergency and is predicated on the potential hazards to life and property evident in each type of occupancy.

Section 14.103 Order of Precedence.

In the event of any conflict between the provisions of this Article and any rules, regulations, code or standards referenced within this Article, the provisions of this Article shall govern. Where a specific provision of this Article varies from a general provision, the specific provision shall govern.

Section 14.104 Definitions.

- (a) ALARM-ACTUATING DEVICE is a manually or automatically operated equipment which, when activated, initiates an alarm through an alarm-indicating device.
- (b) ALARM-INDICATING DEVICE is any equipment that produces an approved alarm signal.
- (c) ALARM SIGNAL is an audible or visual signal, or both, indicating the existence of an emergency fire condition. Audible devices may be bells, horns, chimes, speakers or similar devices. Voice alarms and their messages shall be approved by the chief. Visual devices may be continuous or pulsating lights, flags or other visual indicators, as approved by the chief.
- (d) ALARM SYSTEM is a combination of approved compatible devices with the necessary electrical interconnection and energy to produce an alarm signal in the event of fire or system activation.
- (e) ALARM SYSTEM CLASSES AND TYPES. Alarm systems are divided into the following classes and types:

Classes:

- Class I Actuation of any automatic or manual device initiates a continuous or pulsating alarm on all alarm-indicating devices in the building until manually reset.
- Class II Actuation of any automatic or manual device initiates a continuous or pulsating alarm on all alarm-indicating devices in the building until manually reset and identifies on an annunciator the zone from which the alarm signal originated.
- Class III Actuation of any automatic or manual device initiates a zone-coded alarm signal throughout the building and identifies on an annunciator the zone from which the alarm signal originated.

Class IV Actuation of any automatic or manual device initiates a zone-coded alarm signal to selected areas of the building and identifies on an annunciator the zone from which the alarm signal originated.

Types:

- Type A An electrically supervised fire alarm system installed in accordance with the provisions of NFPA Standard 72A-1985.
- Type B An electrically supervised fire alarm system installed in accordance with the provisions of NFPA Standard 72B-1979, Auxiliary Protective Signaling Systems.
- Type C An electrically supervised fire alarm system installed in accordance with the provisions of NFPA Standard 72C-1982, Proprietary Protective Signaling Systems.
- Type D An electrically supervised fire alarm system installed in accordance with the provisions of NFPA Standard 72D-1979, Proprietary Protective Signaling Systems.
- Type E An electrically supervised fire alarm system installed in accordance with the provisions of NFPA Standard 71-1982, Central Station Signaling System.

- (f) ANNUNCIATOR is any equipment which indicates the zone or area of a building from which an alarm has been initiated, the location of an alarm-actuating device or the operational condition of alarm circuits or the system.
- (g) APPROVED means approval by the fire chief as a result of investigation or tests conducted by him or by reason of accepted principles or tests by national authorities, technical or scientific organizations.
- (h) CODED SIGNAL is an alarm signal or voice alarm which consists of not less than three complete repetitions of the transmission.
- (i) CONTROL UNIT is a unit comprising the controls, relays, switches and associated circuits necessary to (1) distribute power to a fire alarm, (2) receive signals from alarm-actuating devices and transmit them to alarm-indicating devices and accessory equipment, and (3) electrically supervise the system circuitry. The control unit may be contained in one or more cabinets in adjacent or remote locations as approved by the chief.
- (j) ELECTRICALLY SUPERVISED FIRE ALARM SYSTEM is a system designed to transmit a trouble signal to an approved location for any condition that prevents the required operation of the fire alarm system or failure of its main power source.
- (k) OCCUPANCY CLASSIFICATION. See Section 9.117.
- (l) TROUBLE SIGNAL is a distinct audible and visual signal which indicates an abnormal condition of the system being monitored.
- (m) ZONE is a building or a defined area of a building as approved by the fire chief for purposes of identifying locations.

Section 14.105 Design Requirements.

- (a) GENERAL. When required by the fire chief, all information required by this Section shall be prepared by qualified engineers, specialists, laboratory or fire safety specialty organizations acceptable to the chief and to the owner.
- (b) EQUIPMENT. Fire alarm equipment, devices and systems shall be approved for their intended purpose.
- (c) ACCEPTANCE TESTS. Upon completion of a system, a satisfactory test of the entire installation shall be made in the presence of the chief.
- (d) INSTALLATION CERTIFICATION. Upon completion of the installation, the contractor shall provide written certification to the chief that the system has been installed in accordance with the approved plans and specifications. Deviations from such plans and specifications shall not be permitted except with the approval of the chief. When required by the chief, drawings and specifications of any permitted deviations, including wiring locations, shall be submitted to the chief.
- (e) OPERATING INSTRUCTIONS. Written operating instructions are to be provided at an approved location.

Section 14.106 Power Supply.

All required fire alarm systems shall have an approved secondary power supply which shall be capable of operating the entire system as specified in NFPA 72A, Section 2-3.4.

When generators are provided they shall be served by a fuel supply sufficient to operate the system as required by this Section.

Section 14.107 Manual Alarm-Actuating Devices.

(a) Manual alarm-actuating devices shall be installed in the following locations:

- (1) On each floor of the premises in a visible, accessible position and shall be located in exit ways adjacent exit doors and doors leading to exit stairs.
- (2) In locations normally attended by responsible personnel such as manager's office, guardhouse, nurses' stations, etc.
- (3) In other locations as required by the chief.

(b) A maximum travel distance between two devices shall not exceed 200 feet.

(c) Devices shall be securely mounted with the center of the device 48" above the finished floor.

Section 14.108 Alarm Signal Systems and Functions.

(a) When automatic alarm systems are not directly connected to the fire department or other approved agency, an approved external alarm device shall be provided when required by the chief. When external alarms are required, an approved sign which reads WHEN ALARM SOUNDS - CALL FIRE DEPARTMENT shall be installed adjacent to the external alarm devices.

(b) When alarm systems are not directly connected to the fire department or other approved agency, an approved permanent sign which reads LOCAL ALARM ONLY - CALL FIRE DEPARTMENT shall be installed by each manually operated actuating device.

(c) When a fire alarm system is approved for use in combination with a public address or other means of communication, the fire alarm signal shall take precedence over such other communication system upon activation of the fire alarm system.

Section 14.109 Required Installations.

Fire alarm systems shall be installed in the following occupancies as follows:

- (a) Group A occupancies having an occupant load of 300 or more shall be provided with an approved manual and automatic Class IV, Type C, D or E fire alarm system.
- (b) Group E occupancies shall have an approved fire alarm system meeting the requirements of Title 24.

Exception: Group E occupancies, which are not considered public schools, with an occupant load of 50 or more shall be provided with an approved manual and automatic Class II, Type C, D or E fire alarm system.

- (c) Group H-2 occupancies used for the manufacturing of organic coatings shall be provided with an approved automatic and manual Class II, Type C, D or E fire alarm system.

Group H-6 occupancies as set forth in Article 51 with manual and automatic detection Class II, Type C, D or E.

- (d) Group I, Division 1 and 2 occupancies and mental hospitals shall be provided with an approved smoke detection and manually activated Class III, Type C, D or E fire alarm system.
- (e) Group I, Division 3 occupancies except mental hospitals shall be provided with an approved smoke detector and manual Class IV, Type C, D or E fire alarm system.
- (f) Except for Group R, Division 1 occupancies that comply with Section 1807 of the Building Code, an approved automatic and manual fire alarm system shall be provided in the following Group R, Division 1 occupancies.
 - (1) R-1 occupancies other than hotels and motels which are three or more stories in height or containing more than 15 guest rooms, shall have a Class II, Type C, D or E fire alarm system.

- (2) Hotels and motels either three or more stories in height or containing 20 or more guest rooms shall have a Class II, Type C, D or E fire alarm system.

Alarm systems in Group R-1 occupancies shall include provisions for smoke detection and manual operation in interior corridors, and automatic detection in storage rooms, laundry rooms, furnace rooms and similar common areas.

Section 14.110 Special Provisions.

- (a) An approved sprinkler system conforming to UBC Standard 38-1 with shut-off valves and water flow devices supervised as prescribed in Type C, D and E fire alarm systems shall be deemed to meet the automatic detection requirements for Group A, E, H and R-1 occupancies which are fully sprinklered.

Note: This does not permit the elimination of smoke detection devices where required.

- (b) All fire alarm systems shall be installed in such a manner that the failure of any single alarm actuating or alarm indicating device will not interfere with the normal operation of any other such devices.
- (c) The fire chief may waive the requirements as set forth in Section 14.107(a) 1, (a) 2 and (b) for alarm systems in A, E and I occupancies.
- (d) The annunciator and control panel shall be installed in a location approved by the chief.
- (e) Coding and zoning of fire alarm systems shall be as required by the chief and may be omitted when approved by the chief.
- (f) Automatic fire extinguishing systems installed in a structure equipped with a fire alarm system shall have an approved flow indicator electrically interconnected to the fire alarm.

Exception: When approved by the chief, specialty systems such as hood and duct fire extinguishing systems may not be required to be interconnected.

Section 14.111 Existing Buildings.

The provisions of this Article shall apply to existing conditions as well as to conditions arising after adoption thereof, except that conditions legally in existence at the adoption of this Article and not in strict compliance therewith shall be permitted to continue only if, in the opinion of the chief, they do not constitute a distinct hazard to life or property.

Section 14.112 Maintenance of Systems.

All fire alarm systems shall be maintained in accordance with Section 10.302.

Section 29.106 is added to Article 29 (Garages) of the Uniform Fire Code to read:

Section 29.106 Use of Apartment House Garages.

It shall be unlawful for any person to use any apartment house garage or any portion thereof for the construction, alteration or repair of motor vehicles or for the storage for commercial purposes of motor vehicle parts or accessories; provided that minor repairs of motor vehicles lawfully housed in any such garage may be made therein. No fuel except that carried in approved fuel tanks shall be kept in such garage and no fuel shall be put into or taken out of any tank while the same is in such garage.

Section 61.106(c) of Article 61 (Oil Burning Equipment) of the Uniform Fire Code is amended to read:

Section 61.106(c) Portable Oil-Burning Heating Appliances.

The use of listed portable unvented oil-burning heating appliances shall be limited to supplemental heating in Group B and M occupancies.

Exception: Upon approval of the chief, portable unvented oil-burning heating appliances may be permitted in any occupancy during the construction process when such use is necessary for the construction and the use does not represent a hazard to life or property.

Article 78 (Fireworks) of the Uniform Fire Code is deleted and a new Article 78 (Fireworks) is added to the Uniform Fire Code to read:

Section 78.101

Definitions.

As used in this Article, the words and phrases "fireworks", "dangerous fireworks" and "safe and sane fireworks" shall have the respective meanings ascribed to them in Sections 12505, 12511 and 12529 of the Health and Safety Code of the State of California.

Section 78.102

Unlawful to Use Fireworks.

It is unlawful for any person to fire, discharge or explode or cause to be fired, discharged or exploded any fireworks except safe and sane fireworks on July 3, 4 and 5 except at public displays as hereinafter in this Article provided.

Section 78.103

Public Displays.

It is not unlawful to use fireworks at public displays pursuant to permits issued in accordance with this Section.

Any person desiring to hold a public display of fireworks shall make applications therefor to the fire chief at least twenty (20) days in advance of this display. The applicant shall, at the time of applications, submit his State license for inspection and furnish proof that he carries compensation insurance for his employees as provided by the laws of the State of California.

The fire chief shall make an investigation to determine whether such a display as proposed will be of such character or so located that it may be hazardous to property and dangerous to any person and shall, in the exercise of reasonable discretion, grant or deny the permit, subject to such conditions as he may prescribe. No permit granted hereunder shall be transferable.

Section 78.104

Permits to Sell Safe and Sane Fireworks.

- (a) Only non-profit organizations or corporations organized primarily for veteran, patriotic, welfare, civic betterment or charitable purposes shall be eligible for a permit to sell safe and sane fireworks. Written application for a permit shall be made to the fire chief on forms provided by said chief. Only one (1) application per year shall be submitted by each eligible non-profit organization or corporation.
- (b) Applications shall be made between the first day of February and the fifteenth day of May of each year.
- (c) Every application for a permit shall be accompanied by a fee in an amount specified by resolution of the Board of Supervisors to cover reasonable costs of investigation and administration. If the application is denied, one-half of such fee shall be refunded.
- (d) The application shall be accompanied by a deposit of one hundred dollars (\$100) which shall be held by the County to insure that the applicant removes the fireworks stand and all litter from the premises. If the permit is not granted or if granted and the applicant removes the stand and litter as aforesaid, the deposit of one hundred dollars (\$100) shall be returned to the applicant; otherwise, it shall be used by the County to accomplish the work guaranteed thereby, with any balance to be returned to the applicant.
- (e) The application shall set forth the proposed location of the fireworks stand, including a map or plot plan of the lot or premises, on which the stand is to be located depicting the stand and other structures on the premises. Any such stand must conform to zoning and other applicable laws and regulations. The written permission of the owner of record or leasee must accompany the application. Where the application has been selected by drawing pursuant to Section 78.109, the successful applicant may designate a different location for the fireworks stand so long as the new location meets all of the requirements of this subsection.
- (f) Fireworks stands shall be located only in areas zoned Commercial (C) or Industrial (M).

Section 78.105

Investigation and Issuance of Permit.

The fire chief shall cause an investigation to be made and shall issue a permit if he determines that the application conforms to the provisions of this Article and that the location of the proposed fireworks stand will not constitute a fire hazard or otherwise endanger persons or property in the vicinity. Such investigation shall be coordinated with any other investigation required to assure compliance with zoning, traffic and other applicable regulations of the County. The permit issued may be subject to such reasonable conditions as may be necessary to protect the health, safety and welfare of the residents of the County and the safety of neighboring property.

Section 78.106 Fireworks Stand Requirements.

All retail sales of safe and sane fireworks shall be permitted only from within a temporary fireworks stand, and sale from any other building or structure is hereby prohibited. Temporary stands shall be subject to the following provisions:

- (a) No fireworks stand shall be located within 25 feet of any other building nor within 100 feet of any gasoline pump.
- (b) Fireworks stands need not comply with the provisions of the Building Code; provided, however, that all stands shall be erected in such a manner that will reasonably insure the safety of attendants and patrons.
- (c) No stand shall have a floor area in excess of 300 square feet.
- (d) Each stand in excess of 24 feet in length must have at least two (2) exits; and each stand in excess of 40 feet in length must have at least three (3) exits spaced approximately equidistant apart; provided, however, that in no case shall the distance between exits exceed 24 feet.
- (e) Each fireworks stand shall be provided with two (2) fire extinguishers for Class A fires in good working order and easily accessible. Such extinguishers shall be approved as to type by the fire chief and shall conform to the provisions of this Code.
- (f) All signs pertaining to the fireworks stand and sale of fireworks shall be located on the lot or premises on which that stand is located and shall not exceed a sum total area of fifty (50) square feet.

Section 78.207 General Requirements for Permittees.

- (a) All weeds and combustible materials shall be cleared from the location of the stand including a distance of at least 30 feet surrounding the stand.
- (b) "No Smoking" signs shall be prominently displayed on the fireworks stand.
- (c) Each stand must have an adult in attendance and in charge thereof while fireworks are stored therein. Sleeping or remaining in the stand after close of business each day is forbidden.
- (d) The sale of fireworks shall not begin before 12:00 o'clock noon on the 28th day of June and shall not continue after 12:00 o'clock noon on the 6th day of July.
- (e) An informational brochure concerning instructions as to the use of safe and sane fireworks and the hazards attendant with their use by minors shall be furnished each purchaser.
- (f) All unsold stock and accompanying litter shall be removed from the location by 5:00 o'clock p.m. on the 7th day of July.
- (g) The fireworks stand shall be removed from the temporary location no later than the 10th day of July, and all accompanying litter shall be cleared from said location by said date.

Section 78.109 Limitation on Number of Permits.

The maximum number of permits to sell safe and sane fireworks which may be issued pursuant to this Article during any one calendar year shall not exceed one permit for each 3,000 residents of a Fire Protection District, Community Services District, or unincorporated territory of the County not contained within any such district based on the most recent population figures developed by the Alameda County Planning Department. If the number of applications received up to and including the last day for making applications pursuant to this Article exceeds the number of permits to be issued for any such district or territory, the appropriate fire chief shall immediately thereafter supervise an impartial drawing to determine an order of priority for each application. No permit shall be issued to any applicant who does not possess and present at the time of application a valid license issued by the State Fire Marshal for the retail sale of safe and sane fireworks, and no licensee shall receive more than one permit during any one calendar year.

Section 78.110 Exception.

Nothing in this Article shall be construed as prohibiting the use of torpedoes, flares, or fuses by railroads or other transportation agencies for signal purposes of illumination, or the sale or use of blank cartridges for ceremonial purposes, athletic or sports events, or military ceremonies or demonstrations; or the sale, discharge or display of fireworks by permittees having a permit as hereinafter provided; or the use and display of fireworks of whatever nature by any person engaged in the production of motion pictures, theatricals, or operas when such use and display is a necessary part of such production; nor shall this Article apply to those items exempted by Section 12540 of the Health and Safety Code of the State of California.

Section 78.111 Seizures.

Members of the fire department shall have the authority to seize, take, remove or cause to be removed at the expense of the owner all stocks of fireworks offered or exposed for sale, stored or held in violation of the Code.

Sections 79.101(a), 79.114(e), 79.501 and 79.802(b) are amended, and Sections 79.401(b), 79.1204(n) and 79.1204(o) and Article 79-A (Pipelines) are added to Article 79 (Flammable Liquids) of the Uniform Fire Code to read:

Section 79.101(a) Scope.

The storage, use, dispensing and mixing of flammable and combustible liquids shall be in accordance with this Article. This Article also applied specifically to all flammable and combustible liquids as defined in Section 79.102 except those that are solid at 100 degrees F. or above. When heated, sprayed or mixed Class II or Class III liquids may assume the characteristics of lower flash point liquids. Under such conditions the appropriate provisions of this Article for the actual flash point shall apply.

Exceptions:

- (1) The transportation of flammable and combustible liquids when in conformity with the Department of Transportation (DOT) regulations on file with and approved by the Department of Transportation.
- (2) Alcoholic beverages in retail sales or storage uses, provided the liquids are packaged in individual containers not exceeding 4 liters.
- (3) Medicines, foodstuffs and cosmetics containing not more than 50 percent by volume of watermiscible liquids and with the remainder of the solution not being flammable in retail sales or storage uses when packaged in individual containers not exceeding four (4) liters.
- (4) Storage and use of fuel-oil tanks and containers connected with oil-burning equipment. Such storage and use shall comply with Article 61 and the Mechanical Code.
- (5) Liquids without flash points that can be flammable under some conditions, such as certain halogenated hydrocarbons and mixtures containing halogenated hydrocarbons.
- (6) Mists, sprays or foams except flammable aerosols in containers as may be included under Division II.

Section 79.114(e) Underground Tank Removal.

Any underground tank which has been abandoned for a period of one (1) year shall be removed from the ground and the hole properly filled, or when approved by the chief such tank may be abandoned in place and safeguarded in a manner and with a material approved by the chief.

Section 79.401(b) Portable Tanks.

The storage of Class I and II flammable liquids in portable tanks outside of buildings shall be prohibited except when approved by the chief by special permit on remote construction sites and rural areas or as permitted under Section 2.301 of this Code.

Section 79.501 Aboveground Tanks.

The storage of Class I and II flammable liquids in aboveground tanks outside of buildings is prohibited except when approved by the chief by special permit on remote construction sites and rural areas or as permitted under Section 2.301 of this Code.

Section 79.802(b) Dispensing Equipment.

Class I and II liquids shall not be dispensed by gravity from tanks, drums, barrels or similar containers. Dispensing devices for flammable or combustible liquids shall be of an approved type. An exception may be granted where the nature of the liquid to be dispensed makes such a restriction impractical. Approved pumps taking suction from the top of the container shall be used. Flammable or combustible liquids shall not be dispensed by a device that operates through pressure within a storage tank or container, unless the tank or container has been approved as a pressure vessel for the use to which it is subjected. Air or oxygen shall not be used to pressurize an approved pressure vessel. Class I liquids shall be dispensed only from approved safety cans or original containers when approved by the chief.

Section 79.1204(n) Deliveries.

Deliveries of flammable and combustible liquids shall not be made from the street except by permission of the fire chief.

Section 79.1204(o) Hauling and Delivered.

Tank vehicles used for hauling and delivery of flammable liquids shall not be permitted to operate on certain specified streets as designated by the fire chief.

Article 79-A (Pipelines) is added to the Uniform Fire Code to read:

Section 79.1702 Person Defined.

The term person as used in this Article includes any person, corporation, partnership, association, or other form of organization.

Section 79.1703 Subject Pipelines.

Every person who transports any flammable, toxic or caustic substance by means of a pipeline which is situated in or extends into the unincorporated territory of, or traverses the boundaries of two or more cities within, or enters Alameda County, whether such pipeline is on public or private property, excepting a pipeline being an integral part of and lying wholly within one or more contiguous industrial or commercial plant sites, shall be subject to this Article.

Section 79.1704 Information Required.

Every person subject to the provisions of this Article shall provide the Alameda County Office of Emergency Services with the following information:

- (a) Maps delineating the route and place of the proposed and actual pipeline and its shut-off valves within Alameda County.
- (b) List of his telephone numbers to be used to advise him of an emergency involving the pipeline.
- (c) The nomenclature of the transported substance, its nature and designation as flammable, toxic or caustic.
- (d) Upon any change in the actual route of the pipeline, its shut-off valves, its abandonment, emergency telephone numbers, the substance transported, or in the original information provided, updated maps and such substituted information shall be given to the Alameda County Office of Emergency Services.

Section 79.1705 Responsibility of Office of Emergency Services.

Upon receipt of said maps and other required information, it shall be the responsibility of the County Office of Emergency Services to determine whether or not the pipeline and its shut-off valves may be located readily on the ground by reference to its maps and to determine the sufficiency of other required information. When such information is approved and accepted, the County Office of Emergency Services shall, without undue delay, cause such information to be distributed to each fire department, law enforcement agency and/or other interested public agencies whose jurisdiction said pipeline traverses.

Section 79.1706 Exclusions.

Specifically excluded from the provisions of this Article is any public utility system which distributes gas, natural gas or other similar substance to an ultimate retail consumer. Except upon approval of the County Office of Emergency Services, this Section does not exclude that portion of such system that conveys such gas, natural gas or similar substance from its source to the input point of the distribution system to the ultimate retail consumer. In case of any dispute as to what constitutes the input point of such distribution system, the County Office of Emergency Services will be the final arbiter.

Section 79.1707 Penalties.

Any person subject to the provisions of this Article, or their responsible agents, who willfully and knowingly fails to comply with this Article, shall be guilty of a misdemeanor.

Paragraph 2 of Appendix I-C (Stairway Identification) of the Uniform Fire Code is amended to read:

- (2) Scope. The provisions of this Section shall apply to new and existing buildings three or more stories in height or when determined necessary by the chief.

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APPENDIX B

AUTOMATIC FIRE SPRINKLER AMENDMENT TO THE UNIFORM FIRE CODE

This fire code amendment has been adopted by the County Board of Supervisors and is applicable to all unincorporated areas of the county. These requirements exceed the minimum requirements of the Uniform Building Code.

By R. J. Moore

ORDINANCE NO.

AN ORDINANCE REPEALING ORDINANCE NO. 0-87-34 AND AMENDING SECTION 10.308 OF THE UNIFORM FIRE CODE ADOPTED BY CHAPTER 2 OF TITLE 3 OF THE ORDINANCE CODE OF THE COUNTY OF ALAMEDA, RELATING TO AUTOMATIC FIRE EXTINGUISHING SYSTEMS.

The Board of Supervisors of the County of Alameda ordains as follows:

SECTION I

Ordinance No. 0-87-34 of Alameda County is hereby repealed.

SECTION II

Subsections 10.308 (h), (i), (j), (k), (l), (m), (n), (o), and (p) are added to Section 10.308 (Automatic Fire Extinguishing Systems) of the Uniform Fire Code, Chapter 2 of Title 3 of the Ordinance Code of the County of Alameda to read as follows:

10.308 (h) Definitions:

1. Floor Area is defined in Section 407 of the Alameda County Building Code.
2. Hazardous Use is defined in N.F.P.A 13, Appendix A-1-7.1.
3. Undetermined Occupancy is one that is unclassified as to occupancy at the time the building permit is issued.
4. Table I refers to the table set forth in subsection 10.308 (p).
5. New buildings and structures or new additions shall be those for which a building permit is issued after the effective date of this ordinance. However, where a building permit has been issued prior to the effective date of this ordinance, and building construction has not commenced within one year from the effective date, the building for which the permit has been issued shall be considered a new building. Existing buildings and structures shall be those constructed prior to the effective date of this ordinance.

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10.308 (i) An automatic fire sprinkler system shall be installed in the occupancies and buildings as follows:

1. All new buildings or structures having a total floor area which exceeds the applicable maximum area as listed in Table I.
2. All new buildings or structures which are 35 feet or more in height, measured from the lowest floor of fire department access.
3. All new buildings or structures which are three stories or more, measured from the lowest floor of fire department access.

10.308 (j) All existing buildings or structures having a total floor area which exceeds the applicable maximum area listed in Table I shall be required to install an automatic fire sprinkler system when any of the following occurs:

1. A change in occupancy classification or increased hazardous use.
2. A new addition(s) to the building or structure which exceeds 50% of the total floor area of the existing building.
3. A new addition(s), exceeding the applicable maximum area listed in table I, but which is less than 50% of the total floor area of the existing building, shall be protected by an automatic fire sprinkler system and separated from the existing building by a 2-hour fire wall.

10.308 (k) All new or existing buildings or structures with a total floor area less than the applicable maximum area listed in Table I, whose total floor area is, by the new addition(s) thereto, increased so as to exceed the applicable maximum area listed in Table I, shall be protected by an automatic fire sprinkler system when any of the following occurs:

1. A change in occupancy classification or increased hazardous use.
2. The total floor area of the new addition is 50% or more of the total floor area of the building to be increased in area.

10.308 (l) A group M-Occupancy used for farming or agricultural purposes or any Group R-3 Occupancy shall not be required to be protected by an automatic fire sprinkler system unless required elsewhere in the Ordinance Code.

10.308 (m) The total floor area for all new buildings shall be computed without regard to area separation walls and floors of less than 4-hour fire resistive construction, as such construction is defined in the Alameda County Building Code.

10.308 (n) For all undetermined occupancy buildings, the minimum sprinkler density shall be based on .18 gallons per minute for the 3000 square foot design area. For all warehouse storage buildings where storage may exceed 12 feet in height, the minimum sprinkler density shall be based on .33 gallons per minute for the 3000 square foot design area.

10.308 (o) The provisions of Section 10.308 shall not preclude the enforcement of more stringent requirements of the Ordinance Code, or of the State Building Code.

10.308 (p) The following table establishes the maximum allowable floor area in square feet for buildings without automatic fire sprinkler protection, according to the type of occupancy and construction as defined in the Alameda County Building Code.

TABLE I

OCCUPANCY	TYPES OF CONSTRUCTION								
	I	II			III		IV	V	
	FR	FR	ONE-FOUR	N	ONE-FOUR	N	H.T.	ONE-FOUR	N
A-1	10,000	N/A			N/A		N/A	N/A	
A-2-2.1	10,000	10,000	7,500	N/A	7,500	N/A	7,500	7,500	N/A
A-3-4	7,500	7,500			7,500		7,500	7,500	5,000
B-1-2-3	10,000	10,000		5,000	10,000	5,000	7,500	7,500	5,000
B-4	10,000	10,000		5,000	10,000	5,000	7,500	7,500	5,000
E	10,000	10,000	7,500		7,500		7,500	5,000	
H-1-2	1,500	1,500			1,500		1,500	1,500	
H-3-4-5	3,000	3,000			3,000		3,000	3,000	
I-1-2	ALL	ALL		N/A	ALL	N/A	N/A	ALL	N/A
I-3	7,500	7,500	N/A		N/A		N/A	N/A	
M	3,000	3,000			3,000		3,000	3,000	
R-1	5,000	5,000			5,000		5,000	5,000	

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APPENDIX C

MODIFIED RESIDENTIAL SPRINKLER REQUIREMENTS (NFPA 13D)

These modified NFPA 13D requirements have not been adopted as ordinances. They are recommendations which may be imposed as development requirements by the fire districts.

ALAMEDA COUNTY FIRE DEPARTMENT
Modified 13D Sprinkler Requirements
For Residential Occupancies Less Than 5000

Sprinkler systems shall be installed in accordance with NFPA 13D and as noted below:

Construction Requirements

When these systems are accepted as a trade-off to other fire protection requirements, a minimum Class C fire resistive roof shall be required and untreated wood shake or shingle siding is not permitted.

Water Supply

1. The minimum size water meter shall be one inch with an assumed 13 psi loss across the meter at 50 gpm flow.
2. When the irrigation system is, or may be, part of the same service as the sprinkler system, the water flow detector shall be wired to a special irrigation controller receptacle which will shut down irrigation systems upon activation of the water flow detector.
3. For systems serving multiple units, a minimum 5 gpm use per unit, and any other significant demands such as laundry rooms and landscape requirements, shall be included as part of the water demand.
4. A separate shut-off is required for the domestic line so as to allow the domestic house service to be shutdown without shutting down the sprinkler system.

Sprinkler Calculations

1. The total number of sprinkler heads within the hydraulically most remote area shall be calculated to an approximate flow of 50 gpm.
 - a. If sloped beam ceilings exist, a sprinkler is required between each two beams with a minimum flow of 36 gpm with two sprinklers operating.
 - b. If smooth sloped ceilings exist, a minimum of three heads shall be calculated with a minimum flow requirement of approximately 54 gpm.

Sprinkler Locations

Sprinklers shall be located in all areas, but may be eliminated in the following areas:

1. Shower areas of bathrooms.
2. Exterior entrance foyers which are not the only means of egress.

Modified 13D Sprinkler Requirements for Residential Occupancies
less than 5000

3. Open porches and unattached (minimum eight foot separation) garages, carports and similar structures.
4. Attics and crawl spaces which are not used or intended for living or storage purposes.
5. Small closets where the least dimension does not exceed three feet and the area does not exceed 24 square feet as long as these closets are not used for hazardous storage (i.e. flammables, water heaters, washer/dryer). The walls, ceilings and surface of such closets shall be of non-combustible material.

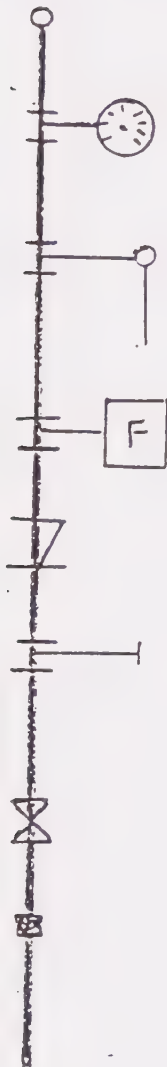
Other

For systems serving multiple units, an inspector's test valve shall be located at a remote area of the system.

Note: A common problem encountered with these systems is the obstruction or partial obstruction of sprinkler protection due to ceiling light fixtures. The type and location of light fixtures must be known when locating sprinkler heads in order to avoid obstruction of sprinkler discharge. See manufacturer's specifications for required sprinkler head distance from obstructions.

RTB/cab

13D SPRINKLER RISER DETAIL



Pressure Gauge. 200psi max. UL listed

Inspector's Test and Drain
Min. $\frac{1}{2}$ " pipe. Discharge orifice
reduced to size of sprinkler head
orifice. ID valve as Insp Test & Drain.

Flow Switch wired to Bell and Irrigation
control recepticle

Check Valve

To Domestic Service. Provide with shut-off.
ID valve as Domestic Shut-off.

Gate Valve
ID Sprinkler Shut-off.

Dialectric Union (if necessary)

Note: Alarm Bell to be ID
Sprinkler Alarm- Call Fire Dept.
Pressure regulating devices shall
not be installed prior to sprinkler
riser tie-in.
All piping upto the check valve on
the sprinkler riser must be approved
for domestic plumbing use. Black
Steel and CPVC is not permitted for
such use.
Plumb inspector's test to location
where discharge will not cause
flooding or damage.

RESIDENTIAL SPRINKLER SYSTEM INSPECTION REQUIREMENTS

Address _____

- I. Overhead inspection and pressure test of all piping within building prior to covering
 - ☐ A. Pressure test of 200 psi for 2 hours.
(by _____)
 - ☐ B. All hangers and bracing must be in place prior to inspection.
 - ☐ C. Pipe of size and type noted on approved plans.
- II. Underground inspection and pressure test of piping from the point of riser connection to the water meter.
 - ☐ A. All piping is visible and unobstructed. Center filling of pipe is permitted.
 - ☐ B. Pressure test shall be at normal system water pressure.
- III. Underground flush and riser inspection
 - ☐ A. The witness of the actual underground flushing of the water pipe by fire department personnel is required. This flush is to be conducted just prior to connecting the sprinkler tie-in to the domestic line. Failure to flush the line prior to tying-in the sprinkler pipe may allow debris to enter the sprinkler system and obstruct orifices. (by _____)

Note: Do not connect the underground piping to the riser prior to the flush. This may allow rocks and debris to enter the sprinkler system, and obstruct sprinkler head orifices or piping.
- IV. Final inspection of the system including but not limited to
 - ☐ A. Location of sprinkler heads.
 - ☐ B. Obstruction of sprinkler heads and location to heat sources.
 - ☐ C. Correct sprinkler heads were used.
 - ☐ D. Spare heads and sprinkler wrench available at riser.
 - ☐ E. Riser, valves, alarm bells are correct and I.D.
 - ☐ F. Hydraulic data for the system is posted at the riser.
 - ☐ G. Irrigation control receptacle is in service, proper location and adequately I.D.
 - ☐ H. System is in service.

Residential Sprinkler System Inspection Requirements
Page 2

- ☐ I. Irrigation control receptacle notice is posted in garage.
- ☐ J. Sprinkler systems maintenance guide for homeowners (CVFPD guide).

Contact the Fire Marshal's Office at (415) 670-5877 for inspections. Minimum 48 hours notice required.

RTB/cab

Irrigation Control Receptacle Requirement

Problem

Irrigation systems will generally be designed to utilize the maximum amount of flow available from the water meter. If this water source is also utilized for a residential fire sprinkler system, then little water will be available for the fire system if the irrigation system is operating.

In order to assure adequate water for a fire sprinkler system, it is necessary to assure that the irrigation system will not be operating when the fire system activates. For an electrically operated automatic irrigation system, this can be accomplished by providing a special electrical receptacle for the irrigation system's power supply. This receptacle would be interconnected to the fire sprinkler flow switch and upon activation of the flow switch power would be disrupted to the irrigation system shutting it down.

Solution

The fire sprinkler installer should assure that a special electrical receptacle is provided for the irrigation controller which will cause the shutdown of the irrigation system upon activation of the fire sprinkler system.

Many sprinkler flow detectors are provided with normally open and normally closed contacts. The normally open contact is generally used for activation of the alarm bell, but the normally closed contacts are seldom or never used. This set of contacts can be used to power the irrigation controller. If the flow sensor does not have a normally closed set of contacts, then one can be installed and the interrupt signal can be provided through the alarm bell circuit.

The next problem is how to get the sprinkler contractor to use the special receptacle. If things are made easy for people, they will do what needs to be done, but if things are difficult for them, they will not. So the idea is to make it simple for the irrigation installer to use this special receptacle. First, the irrigation contractor will want to put all of the irrigation stations close to the main water source because this cuts down piping cost. Next they will want to place the controller as close to the station's valves as possible, this cuts down wiring cost. Most of the time the main controller is located inside the garage or utility room as the non-water-tight controllers are less expensive than the water-tight models. Putting all of this together, we find that the receptacle should be placed within ten feet of where the main water feed enters the structure. If this is near a garage or utility room, then the receptacle should be placed inside this room and a 3/4" conduit provided through the wall. This conduit provides a way for the irrigation contractor to get the low voltage wiring from the main controller through the wall to the station valves.

If it appears that the irrigation controller will be placed on

IMPORTANT NOTICE

HOMEOWNERS AND IRRIGATION INSTALLER:

This house is provided with life safety residential fire sprinklers. In order for this system to work properly, adequate water and pressure must be available for operation of the sprinkler heads.

Since irrigation of landscaping will rob necessary water from the fire sprinklers, it is necessary to provide a means to shut down the irrigation system if the fire sprinklers were activated.

To accomplish this, all landscape irrigation systems must be automatic controlled systems which are electrically interconnected to the fire sprinkler system.

A special electrical outlet (irrigation control receptacle) is provided. This outlet is interconnected to the fire flow switch and upon activation of the switch, power will be interrupted to the irrigation control receptacle; thus, shutting off the irrigation system.

The irrigation control receptacle has limited amperage capacity. This receptacle cannot be used for any other purpose except as the power source for the automatic irrigation controller.

If you have any questions concerning this special receptacle, contact Castro Valley Fire at (415) 670-5877.

This receptacle is located at:

Note: Prior to sprinkler final, a copy of this notice must be posted in the garage within a frame. The developer is also required to supply a copy to the homeowner upon purchase of the property.

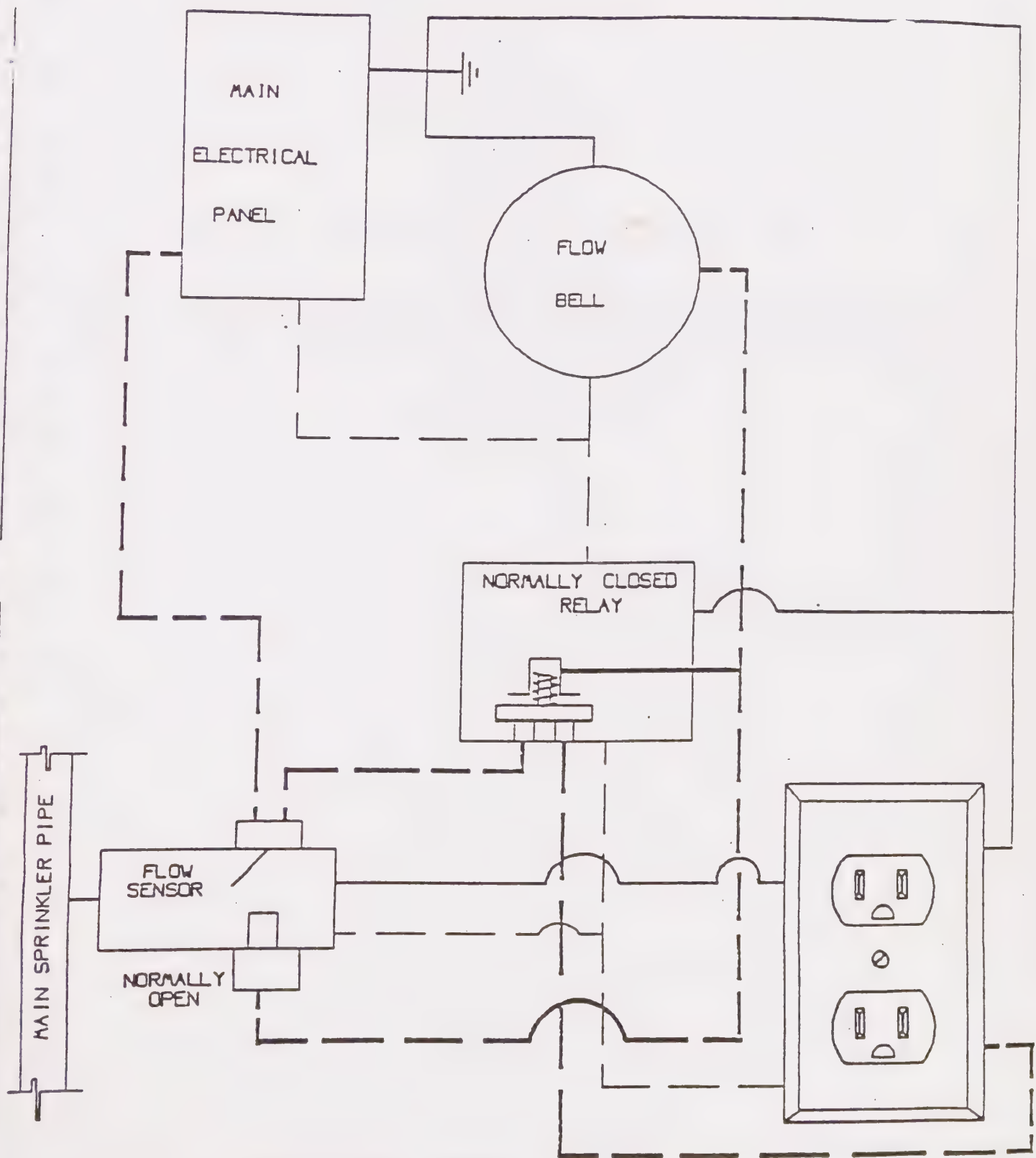
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should be placed within ten feet of where the main water lines enter the structure. The exception to this placement occurs when this would mean mounting the receptacle and controller on the front of the structure or other unlikely location. In these cases the irrigation controller will most likely be placed in a nearby location that is concealed from view. The receptacle should be placed near this location.

Additionally, if it is impossible to get electrical lines from the controller to the station valves, due to driveways or other obstacles, battery powered controllers may be used instead of a main controller, thereby by-passing this system. To help reduce the last two problems and many others, taking two actions is recommended. One is providing a standard letter with the installation explaining the water supply conflict and the purpose of the special receptacle to help solve it. This letter should detail the location of the special receptacle and state that any irrigation controller should be plugged into this, and only this, receptacle. Since the flow switch controllers have a limited amperage capacity, the letter should stress that the special receptacle should only be used for irrigation controllers. Second, an adhesive label should be placed on the special receptacle stating: "THIS RECEPTACLE TO BE USED FOR IRRIGATION CONTROLLERS ONLY. If you have questions concerning this receptacle's use, please call your local Fire Department."

Remember

1. The intent of this requirement is to de-activate the landscape irrigation systems when the structure's fire sprinkler system is activated.
2. The shut down is to be provided by a dedicated U-ground electrical receptacle that is automatically disconnected from its power supply when the fire sprinkler system flow valve activates.
3. All relays and wiring should meet the requirements of a nationally recognized electrical code.
4. The receptacle should be located where it is easily accessible for use by the irrigation contractor. This is normally close to (within ten feet) the entry point into the structure of the main water line. It is also preferable to place the receptacle on an interior wall if the water line enters near a garage, mechanical or utility room. If the main water line enters the structure at a point other than a garage, mechanical or utility room, then the receptacle should be on the exterior of the building but still close to the main water line.
5. If the receptacle is mounted on an interior wall, a 3/4" or larger conduit should be provided through the wall to allow passage of irrigation control wiring.
6. This receptacle should be labeled that it is to be used for Irrigation Controller only, and a letter be provided concerning the receptacle.



- WHITE OR GRAY (NEUTRAL)
- GREEN OR BARE (GROUND)
- BLACK (HOT)

APPENDIX D

NEW DEVELOPMENT GUIDELINES FOR FIRE PROTECTION

These development guidelines have been prepared for use by the fire agencies in the unincorporated areas as development requirements. These have not been adopted by the Board of Supervisors as an ordinance.

FIRE DEPARTMENT
PARCEL MAP AND TRACT MAP
DEVELOPMENT GUIDE FOR
DWELLING OCCUPANCIES

Authorities cited:
1985 Uniform Fire Code
1982 Uniform Building Code
National and Local Standards

First Edition

FOREWARD

It is the intent of this guidebook to help aid developers and engineers by informing them of typical fire department requirements which pertain to parcel and tract map developments.

Within the unincorporated areas of Alameda County fire protection and Code enforcement is provided by several different fire districts or agencies. Each of these entities have their own legal authority for interpretation and enforcement of the fire regulations within their respective areas. Because of this, all projects must be reviewed by the local fire agency to assure compliance.

Approval of the tentative map by the Planning Department does not necessarily indicate that fire department requirements or access have been met. The applicant should assure that fire department requirements are met prior to Planning Department approval of the tentative map. Failure to meet fire department requirements at the tentative map stage may prohibit fire department approval of the final map, improvement plans or issuance of the building permit, certificate of occupancy or building final.

For any questions concerning fire requirements for your project or questions relating to this guidebook, please contact the local fire agency in which your project resides.

FIRE AGENCIES

Castro Valley Fire Protection District
20336 San Miguel Avenue
Castro Valley, CA 94546
415 670-5877

County Fire Patrol/County Fire Warden
1617 College Avenue
Livermore, CA 94550
415 447-6611

California Division of Forestry and Fire
11345 Pleasanton-Sunol Road
Pleasanton, CA 94566
415 862-2196

Eden Consolidated Fire Protection District
427 Paseo Grande
San Lorenzo, CA 94580
415 670-5853

Fairview Fire Protection District
24200 Fairview Avenue
Hayward, CA 94541
415 670-5870

Redwood County Fire Protection District
& East Bay Regional Park District
11500 Skyline Boulevard
Oakland, CA 94578
415 531-9300

Tennyson Fire Protection District
258 West Tennyson Road
Hayward, CA 94544

FIRE DEPARTMENT REQUIREMENTS
PARCEL AND TRACT MAP DEVELOPMENTS
for
DWELLING OCCUPANCIES

I. REVIEW PROCESS

- A. TENTATIVE MAPS require review by the fire department.

Typically, the planning department will automatically refer such to the fire department for review and comment. The fire department will respond back to the planning department with its comments.

Note: County approval of the tentative map does not necessarily indicate fire department access and turnaround requirements have been met. Failure to meet fire department requirements may prohibit approval of the improvement plans or building final.

- B. IMPROVEMENT PLANS and FINAL MAP require review by the fire department prior to County acceptance.

It is necessary to submit one copy of both the final map and two copies of the improvement plans to the fire department for its review. Fire department comments will be noted upon these maps and then returned for correction.

Once all comments have been addressed, submittal of the corrected set of plans for fire department approval is required. This submittal set should include:

1. The original review set containing the fire department comment notes.
 2. Four (4) copies of the improvement plans for fire department signature. Three (3) copies will be returned to the applicant for submittal to Public Works.
 3. One (1) copy of the final map, if any corrections/notes were required on such.
- C. IMPROVEMENT WORK INSPECTIONS: Prior to acceptance of actual improvement work by the County, an inspection by the fire department of its requirements is required. The fire department should be contacted directly for this inspection. Upon fire department approval, a letter will be sent to Public Works.

II. PLAN SUBMITTALS SHALL INCLUDE

- A. Improvement plans indicating the following:
1. All lots and structure locations.
 2. All roads and driveways.
 3. The width and grades of all roads and driveways.
 4. The location of any permitted parking.
 5. Any possible obstructions of roads and driveways including overhead obstructions.
 6. The location of any gates or bridges.
 7. The location of any fire protection equipment (i.e. hydrants).
 8. The location and method of Fire Lane posting.
 9. Topography of the site and lots.
 10. A cross section detail of all roads and driveways.
 11. A signature block upon the first page of the improvements plans stating "Review of these plans by (name of fire department) has been conducted."

Fire Official

Date

III. FIRE ACCESS ROAD REQUIREMENTS

A. FIRE ACCESS ROADS INCLUDE

1. All public and private streets.
2. All driveways within 150 feet of any portion of an exterior wall. (This distance is measured around the building as hose lines would be pulled.)

B. DESIGN REQUIREMENTS

1. WIDTH (PUBLIC ROADS)

- a. The minimum width for any minor residential public street shall not be less than 39 feet F/C to F/C where parking is permitted on both sides.

APPENDIX E

WATER SYSTEM/FIRE FLOW REQUIREMENTS

These fire flow requirements for residential occupancies with areas less than 5,000 square feet have been prepared as guidelines for county fire protection agencies. These have not been adopted by ordinance by the County Board of Supervisors. Appendices IIIA and IIIB of the Uniform Fire Code are also used as guidelines but also have not been adopted by ordinance since the 1988 UFC has not been adopted.

Basic Fire Flow Requirements for
Residential Occupancies Less Than 5,000 Square Feet

Minimum Required Fire Flow Requirements:

Bldg. Sq. Footage ¹	Basic Fire Flow ³	Special Purpose Class C Roofs ²	Class A or B Roofs ²
=>1500 < 2000	1750 gpm	-250 gpm	-500 gpm
=>2000 < 3000	2000 gpm	-250 gpm	-500 gpm
=>3000 < 4000	2500 gpm	-250 gpm	-500 gpm
=>4000 < 5000	2750 gpm	-250 gpm	-500 gpm

- 1 Based on total building area measured from outside wall to outside wall including garages and other similar spaces.
- 2 These types of roofs permit a reduction in fire flow as noted for R-3 occupancies.
- 3 The installation of automatic fire sprinklers may allow a reduction in the required fire flow.

Note: Buildings with three or more units that are 5,000 square feet or greater fall within Alameda County's Fire Sprinkler Ordinance.

Proof of available fire flow must be submitted to the fire department (may be obtained from East Bay Municipal Utility District) prior to approval of the Building Permit.

Division III
FIRE PROTECTION
APPENDIX III-A
FIRE-FLOW REQUIREMENTS FOR BUILDINGS

1. SCOPE

This appendix is the procedure for determining fire-flow requirements for all buildings or portions of buildings hereafter constructed. This appendix is not intended to apply to structures other than buildings. The fire-flow requirement is the quantity of water in gallons per minute needed to control an anticipated fire in a building or group of buildings. The chief shall establish the minimum residual pressure and the flow duration to be used when determining fire flow.

2. DEFINITIONS

FIRE AREA is the total floor area in square feet for all floor levels within the exterior walls, or under the horizontal projection of the roof of a building. Each portion of a building separated by one or more four-hour area separation walls with no openings and provided with a 30-inch parapet constructed in accordance with the Building Code may be considered as separate fire areas for the purposes of determining the required fire flow.

3. MODIFICATIONS

Fire-flow requirements may be modified downward for isolated buildings or group of buildings in rural areas or small communities where the development of full fire-flow requirements is impractical.

Fire flow may be modified upward where conditions indicate an unusual susceptibility to group fires or conflagrations. An upward modification shall not be more than twice that required for the building under consideration.

4. FIRE-FLOW REQUIREMENTS FOR BUILDINGS

The minimum fire-flow requirements for one- and two-family dwellings shall be 1000 gallons per minute.

EXCEPTION: Fire flow may be reduced 50 percent when the building is provided with an approved automatic sprinkler system.

The fire flow for buildings other than one- and two-family dwellings shall be not less than that specified in Table No. III-A-A.

EXCEPTION: The required fire flow may be reduced up to 75 percent when the building is provided with an approved automatic sprinkler system, but in no case less than 1500 gallons per minute.

In Types I and II-F.R. construction, only the three largest successive floor areas shall be used.

2. Provide examples of your unauthorized discharge log. Include: date and time of any discharge, type of material discharged, amount of material discharged identify if incident was a reportable or recordable discharge, cause of discharge, corrective actions taken, time and date of corrective action, methods of disposal of discharged material, and signature and title of responsible official.

SECTION VI: EMERGENCY EQUIPMENT

The following information must be provided for each storage facility:

1. Indicate the type of emergency equipment available and its location (access and distance from the storage facility, etc.).

NOTE: This section may be coded with the facility storage map—Section I, Part C, for large facilities.

2. Provide a brief description of any testing or maintenance programs for the available emergency equipment.
3. Indicate that U.F.C. Standard No. 79-3 hazard identification placarding is provided for each storage area.
4. Indicate that substances in any storage containers are adequately identified.
5. Indicate that emergency responses procedures are posted in a conspicuous location near each storage facility.

SECTION VII: WASTE-HANDLING PROCEDURES

List all procedures used at each facility for the proper disposal of all hazardous wastes. Provide a brief explanation of the method used, when appropriate. Examples of waste-handling procedures include: disposal at an approved hazardous waste-disposal facility, direct discharge to sanitary sewer, recycle, pretreatment discharge to sanitary sewer, etc.

NOTE: A permit may be required from one or more agencies before implementing certain disposal methods. Contact the appropriate agency for more information.

TABLE NO. III-A-A
FIRE-FLOW GUIDE FOR BUILDINGS OTHER THAN
ONE- AND TWO-FAMILY DWELLINGS

FIRE FLOW (Gallons Per Minute)	CONSTRUCTION TYPE				
	I II-F.R.	II ONE-HR. III ONE-HR.	IV-H.T. V-ONE-HR.	II-N III-N	V-N
	TOTAL FIRE AREA IN SQUARE FEET				
1,500	22,700	12,700	8,200	5,900	3,600
1,750	30,200	17,000	10,900	7,900	4,800
2,000	38,700	21,800	12,900	9,800	6,200
2,250	48,300	24,200	17,400	12,600	7,700
2,500	59,000	33,200	21,300	15,400	9,400
2,750	70,900	39,700	25,500	18,400	11,300
3,000	83,700	47,100	30,100	21,800	13,400
3,250	97,700	54,900	35,200	25,900	15,600
3,500	112,700	63,400	40,600	29,300	18,000
3,750	128,700	72,400	46,400	33,500	20,600
4,000	145,900	82,100	52,500	37,900	23,300
4,250	164,200	92,400	59,100	42,700	26,300
4,500	183,400	103,100	66,000	47,700	29,300
4,750	203,700	114,600	73,300	53,000	32,600
5,000	225,200	126,700	81,100	58,600	36,000
5,250	247,700	139,400	89,200	65,400	39,600
5,500	271,200	152,600	97,700	70,600	43,400
5,750	295,900	166,500	106,500	77,000	47,400
6,000	UNLIMITED	UNLIMITED	115,800	83,700	51,500
6,250	"	"	125,500	90,600	55,700
6,500	"	"	135,500	97,900	60,200
6,750	"	"	145,800	106,800	64,800
7,000	"	"	156,700	113,200	69,600
7,250	"	"	167,900	121,300	74,600
7,500	"	"	179,400	129,600	79,800
7,750	"	"	191,400	138,300	85,100
8,000	"	"	UNLIMITED	UNLIMITED	UNLIMITED

APPENDIX III-B

FIRE HYDRANT LOCATION AND DISTRIBUTION

1. SCOPE

Fire hydrants shall be provided for the protection of all buildings or portions of buildings hereafter constructed. Fire hydrants shall be provided along required fire apparatus access roadways and adjacent public streets.

2. NUMBER OF HYDRANTS

The minimum number of hydrants available to a building shall be not less than that listed in Table No. III-B-A. The number of hydrants available to a complex or subdivision shall not be less than that determined by spacing requirements listed on Table No. III-B-A when applied to fire apparatus access roadways and perimeter public streets from which fire operations may be conducted.

Existing hydrants on public streets may be considered available unless fire apparatus access roadways extend between properties and easements are established to prevent their obstruction.

3. DISTRIBUTION OF HYDRANTS

The average spacing between fire hydrants shall not exceed that listed on Table No. III-B-A, except that the chief may accept a deficiency of up to 10 percent where existing hydrants provide all or a portion of the required fire hydrant service.

Regardless of the average spacing, no point on the street or access roadway adjacent to a building shall be farther from a hydrant than that distance listed in the last column of Table No. III-B-A.

**TABLE NO. III-B-A
NUMBER AND DISTRIBUTION OF FIRE HYDRANTS**

FIRE FLOW REQUIREMENT (gpm)	MINIMUM NO. OF HYDRANTS	AVERAGE SPACING BETWEEN HYDRANTS^{1 2 3} (FL)	MAXIMUM DISTANCE FROM HYDRANT TO ANY POINT ON STREET OR ROADWAY FRONTAGE³ (FL)
750-1750	1	500	250
2000-2250	2	450	225
2500	3	450	225
3000	3	400	225
3500-4000	4	350	210
4500-5000	5	300	180
5500	6	300	180
6000	6	250	150
6500-7000	7	250	150
7500 or more	8 or more ⁴	200	120

¹Reduce by 100 feet for dead-end streets or roadways.

²Where streets are provided with median dividers which can be crossed by fire fighters pulling hose lines, or arterial streets are provided with four or more traffic lanes and have a traffic count of more than 30,000 vehicles per day, hydrant spacing shall average 500 feet on each side of the street and be arranged on an alternating basis up to a fire-flow requirement of 7000 gpm and 400 feet for higher fire-flow requirements.

³Reduce by 50 feet for dead-end streets or roadways.

⁴One hydrant for each 1000 gpm or fraction thereof.

⁵Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, fire hydrants should be provided at not less than 1000-foot spacing to provide for transportation hazards.

APPENDIX F

FIRE SAFETY REQUIREMENTS DURING CONSTRUCTION

These requirements have been prepared for use by county fire agencies as guidelines but are not required by county ordinance.

APPENDIX D

REQUIREMENTS FOR FIRE SAFETY
DURING CONSTRUCTION, ALTERATION OR DEMOLITION OF A BUILDING

1. Fire access roads shall be provided and maintained clear prior to the start of combustible construction. Section 87.103(b).***
 2. Fire protection systems such as water mains, hydrants, and yard standpipes shall be installed and operational prior to the start of combustible construction. Section 87.103(c).***
- *** PRIOR TO COMBUSTIBLE CONSTRUCTION COMMENCING BEYOND THE FOUNDATION, THE FIRE DEPARTMENT SHALL BE CONTACTED FOR AN ON-SITE INSPECTION OF FIRE ACCESS ROADS AND FIRE PROTECTION SYSTEMS. NOT UNTIL WRITTEN APPROVAL IS GIVEN BY THE FIRE DEPARTMENT SHALL COMBUSTIBLE CONSTRUCTION BEGIN.
3. Portable fire extinguishers shall be provided on the job site. Extinguishers shall be a minimum 2A 10BC rating, and be placed on each level of the building in a clearly visible place within 75 feet travel distance. Section 87.103(d).
 4. Combustible debris and rubbish shall not be allowed to accumulate within or next to the building. Such shall be removed as necessary. Section 87.103(e).
 5. Internal combustion power equipment shall be used so as exhaust does not accumulate in buildings or blow against combustible material. Such equipment shall not be fueled while the engine is running, and fuel for such equipment shall be stored in locations outside of buildings secured from unauthorized access and in a manner approved by the Fire Department. Section 87.103(f).
 6. All temporary heating devices shall be approved by the Fire Department prior to use. Section 87.103(g).
 7. Smoking is not permitted in or near buildings under construction. "No Smoking" signs shall be posted throughout the job site and at all entrances to the job site. If requested, special areas may be approved by the Fire Department for smoking. (Section 87.103h)
 8. At least one 2A 10BC rated fire extinguisher shall be kept within 20 feet of the location where welding or cutting is being done. Section 49.107(m).
 9. When welding and cutting is being done and such is within 10 feet of combustible materials or located over combustible materials, a fire watch shall be on hand during the operation and at least one half hour afterwards. Section 49.107(n).

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10. A fire watch shall be maintained at least one half hour after cutting, welding, sweating pipe joints, or removing paint when open flames are used. Sections 11.408 and 49.107(o).
11. Flammable liquids shall be used and stored in accordance with Article 79 of the Fire Code.
12. Asphalt and tar kettles shall be used in accordance with Section 11.403 of the Fire Code. Asphalt kettles shall not be used inside or on the roof or under the roof projection of any building. A minimum 2A 20BC fire extinguisher shall be provided within 30 feet of each kettle while the kettle is in use, and a minimum 2A 20BC fire extinguisher shall be provided on the roof being covered.

The kettle, while in operation, shall be maintained a safe distance from any combustible materials or buildings.

13. No burning of debris, bon fires, or open fires shall be conducted without a Burn Permit. Article 4, C.A.F.C.
14. Fire protection systems (i.e. sprinklers), fire walls, and doors shall be given priority in installation, and once installed such shall be placed in service and maintained operational in the manner specified by the Code. Fire doors, once installed, shall not be obstructed from closing. NFPA 5-1.1 and 5-5.1.

APPENDIX G

WILDLAND FIRE SAFETY REQUIREMENTS

These requirements have been developed as guidelines but have not been adopted by ordinance. In State Responsibility Areas protected by the California Department of Forestry the Fire Safe Standards of the Public Resources Code are applicable.

Wildland Fire Safety Requirements

1. Firebreak - 30 Feet

Maintain around and adjacent to all structures a firebreak made by removing and clearing away, for a distance of not less than 30 feet of each side thereof, or to the property line, whichever is nearer, all flammable vegetation or combustible growth.

2. Fuel Modification - 30 to 100 Feet

Maintain around and adjacent to any building additional fire protection or firebreak made by removing all brush, flammable vegetation, or combustible growth which is located 30 to 100 feet from such buildings or to the property line, whichever is nearer, as may be required by the Fire Department. (Single specimens of trees or ornamental shrubbery or other plants which are used as ground cover provided they do not form a means of rapidly transmitting fire from the native growth to any building is permitted.)

Grass and other vegetation located more than 30 feet from such structure and less than 18 inches in height above the ground may be maintained where necessary to stabilize the soil and prevent erosion when approved by the Fire Department.

3. Chimney and Stovepipes

Remove that portion of any tree which extends within 10 feet of the outlet of any chimney or stovepipe.

4. Overhanging Vegetation

Remove dead or dying wood from any tree adjacent to or overhanging any building.

5. Vegetation on Roof

Remove leaves, needles, or other dead vegetation growth from the roof of any structure.

6. Access

Property providing access to the wildland areas when enclosed should be provided with gates so as to allow easy access to these areas by Fire Fighters.

Access shall be provided along the side of structures in order to allow Fire Fighters access to the rear of the property. When such areas are enclosed, gates should be provided for easy fire fighter access.

7. Protecting Exposures

Exposed combustible balconies, eaves, unenclosed roofs, and exterior walls of buildings should be protected on the exposed underside or exposed wall with approved fire resistant construction.

8. Chimney Spark Arresters

Chimneys shall be provided with approved spark arresters.

9. Attic Openings

Attic openings, soffit vents, foundation louvers, or other vertical exterior walls or eave openings should be covered with 1/4 inch mesh metal screen.

10. Roofs

Roofs should be maintained with fire resistant construction.

RTB/cab

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APPENDIX H

FIRE FLOW/FIRE HYDRANT IMPROVEMENT FUND

In 1988 a fund of \$1,000,000 was established through the SDAF program to fund water system improvements to correct fire flow deficiencies. These monies are intended primarily for the installation of fire hydrants but some water main construction can be included. The enclosed letter to Mr. Robert Sakai from Mr. Michael Hood the county building official describes this program.

MEMO TO: Bob Sakai,

FROM: Michael A. Hood, Building Official

SUBJECT: Special District Augmentation Funds

RECOMMENDATION:

It is recommended that you allocate approximately \$1,000,000 to the fire districts within the unincorporated area of the county for the purpose of establishing a fund for the installation of additional fire hydrants.

BACKGROUND:

There are four main fire districts within the unincorporated area of Alameda County:

1. Alameda County Fire Patrol
2. Castro Valley Fire Department-13.0 square miles and a service population of 45,000
3. Eden Consolidated Fire Department-7.6 square miles and a service population of 60,000
4. Fairview Fire Department-4.0 square miles and a service population of 10,000

The current standard for the placement of new fire hydrants is a spacing of between 300 and 400 feet. This requirement varies depending on such factors as type of development, fire load, and type of fire equipment available within the district.

There is virtually no existing mechanism for the installation of new fire hydrants in areas where the spacing between existing hydrants exceeds the 300 to 400 foot standard. A preliminary survey of each of the four fire districts reveals that there are approximately 500 areas where the existing fire hydrant spacing exceeds 700 feet.

The number of areas where the current hydrant spacing is considered substandard is as follows:

- | | |
|------------------------------------|-----|
| 1. Alameda County Fire Patrol | 50 |
| 2. Castro Valley Fire District | 250 |
| 3. Eden Consolidated Fire District | 150 |
| 4. Fairview Fire Department | 50 |

A separate but related issue is that of sharing costs with a developer when that developer is required to install a hydrant in a substandard area. Typically, when a developer divides a piece of property, that developer is required to install a hydrant to serve the divided land. If the hydrant has the effect of improving a substandard condition, such as the spacing of existing hydrants, the developer argues that the cost should be shared with the district. An ordinance should be developed to determine the formula by which those costs could be shared and a fund should be established from which money could be drawn.

It is proposed that a special fund be established for the purpose of installing additional fire hydrants. Based on the number of substandard areas, if \$1,000,000 was available, then the distribution would be approximately:

1. Alameda County Fire Patrol	100,000
2. Castro Valley Fire District	500,000
3. Eden Consolidated Fire District	300,000
4. Fairview Fire Department	100,000

It is also proposed that each district hold in reserve approximately 10% of this revenue for the purpose of sharing the cost with a developer for the installation of a hydrant in any of the substandard areas.

The cost of installing a single fire hydrant on an existing line is between \$3,000 and \$5,000. A fund of \$1,000,000 would allow the installation of between 200 and 300 hydrants.

It should be noted that many fire hydrants could also be considered substandard since the waterlines serving those hydrants are smaller than the current standard of 6 to 8 inches. Smaller lines reduce the flow or gallons per minute available through the hydrant. Although this is another primary concern, the water companies are upgrading many of these lines as part of their ongoing maintenance and replacement programs.

APPENDIX I

APPARATUS MAINTENANCE BY PRIVATE CONTRACTOR

This appendix describes a preventive maintenance program for fire apparatus which is provided by a private sector maintenance company. CVFPD and ECFPD have been contracting with this company and the FFPD is also considering contracting with this firm.



RUSSETT DIESEL SERVICE, INC.

Authorized Dealer For
Detroit Diesel and Allison Transmissions

2090 WARM SPRINGS COURT
FREMONT, CALIFORNIA 94539
(415) 656-3150



Detroit Diesel Allison

Detroit Diesel Allison

GARY HENTHORNE
CASTRO VALLEY FIRE DEPARTMENT
20336 SAN MIGUEL AVE.
CASTRO VALLEY, CA. 94546

FEBRUARY 2, 1989

DEAR MR HENTHORNE,
HERE IS THE ESTIMATE YOU REQUESTED.

6 MONTH SERVICE INCLUDES THE FOLLOWING:

1. CHASSIS LUBRICATION..... 1.0 hrs.
2. ENGINE: OIL AND FILTERS..... 1.0 hrs.
- COOLING SYSTEM..... .3 hrs.
- BELTS..... .2 hrs.
- AIR SYSTEM..... .1 hrs.
- BREATHERS..... .1 hrs.
3. REAR AXLE..... .7 hrs.
4. WHEELS AND BRAKES..... .8 hrs.
5. INSPECT CHASSIS - TIGHTEN SPRINGS..... 1.0 hrs.
- TIGHTEN CAB AND BODY PARTS..... 1.0 hrs.

TOTAL COST PER VEHICLE SERVICED AT YOUR FACILITY UNDER OUR 6 MONTH SERVICE
PLAN INCLUDES VEHICLE INSPECTION, PARTS, LABOR AND TAX.....

ANNUAL SERVICE INCLUDES THE FOLLOWING:

1. PUMP MAINTENANCE..... 2.5 hrs.
2. CHASSIS LUBRICATION..... 1.0 hrs.
3. ENGINE: OIL AND FILTERS..... 1.0 hrs.
- BELTS..... .2 hrs.
- AIR SYSTEM..... .1 hrs.
- FUEL SYSTEM..... 1.0 hrs.
- TUNE-UP..... 5.0 hrs.
- EXHAUST SYSTEM..... .3 hrs.
- BREATHERS..... .1 hrs.
- ENGINE AND RADIATOR MOUNTS..... .5 hrs.
4. TRANSMISSION: OIL AND FILTERS..... 1.5 hrs.
- LINKAGE AND CABLES..... .5 hrs.
- OPERATION AND MOUNTING..... .5 hrs.
5. BATTERY AND GAUGES..... .5 hrs.
6. WHEELS AND BRAKES..... 1.3 hrs.
- WHEEL LUGS..... .4 hrs.

INSPECTION, PARTS AND LABOR ARE PROVIDED ANNUALLY AT RUSSETT DIESEL SERVICE.
TOTAL COST PER VEHICLE PER YEAR.....

THANK YOU FOR YOUR TIME AND CONSIDERATION.

SINCERELY,

Butch Thomas
BUTCH THOMAS

FIRE TRUCK AND EMERGENCY VEHICLE
MAINTENANCE PROGRAM
TIME RECAP SHEET

<u>SERVICE</u>	<u>6 MO</u>	<u>ANNUAL</u>
	<u>(hours)</u>	
PUMP MAINTENANCE.....	1.5	2.5
CHASSIS LUBRICATION.....	1.0	1.0
WHEEL BEARING, REPACK (4 WHEELS).....	-	6.0
ENGINE....OIL AND FILTERS.....	1.0	1.0
COOLING SYSTEM.....	0.3	1.3
BELTS.....	0.2	0.2
AIR SYSTEM.....	0.1	0.1
FUEL SYSTEM.....	1.0	1.0
TUNE-UP.....	0.3	5.0
EXHAUST SYSTEM.....	0.3	0.3
BREATHERS.....	0.1	0.1
ENGINE AND RADIATOR MOUNTINGS.....	0.5	0.5
TRANSMISSION....OIL AND FILTERS.....	0.3	1.5
LINKAGE AND CABLES.....	0.5	0.5
OPERATION ND MOUNTING.....	0.5	0.5
BATTERY AND GAUGES.....	0.5	0.5
REAR AXLE.....	0.7	1.6
WHEELS....BRAKES.....	0.8	1.3
WHEEL LUGS.....	0.4	0.4
TIRE PRESSURE.....	0.1	0.1
CHASSIS...INSPECT-TIGHTEN SPRINGS.....	1.0	-
TIGHTEN CAB AND BODY BOLTS.....	1.0	-
JACK CAB OPERATION.....	0.2	-
INSPECT LIGHTS.....	0.2	0.2
HORN AND SIREN.....	0.1	0.1
WIPER-INSPECT.....	0.1	0.1
TOTAL HOURS.....	12.7	25.8

RUSSETT DIESEL SERVICE
FIRE TRUCK AND EMERGENCY VEHICLE
MAINTENANCE PROGRAM

PLEASE CIRCLE SERVICE OR SERVICES REQUIRED

	6 MO	ANNUAL
<u>PUMP MAINTENANCE</u>		
GEAR TRAIN TRANSMISSION		
A. Check oil level - add if required	x	x
B. Change oil		x
CHAIN DRIVE TRANSMISSION		
A. Check oil level - add if required	x	
B. Change oil		x
C. Clean oil pump (sump) strainer		x
CHAIN DRIVE - FLYWHEEL PTO		
A. Check oil level - add if required	x	
B. Change oil		x
C. Clean oil pump (sump) strainer		x
D. Replace oil filter element		x
OUTBOARD BEARING		
A. Inspect and grease	x	x
THIRD STAGE BEARING		
A. Inspect and grease	x	x
TRANSFER VALVE		
A. Shift back and forth between positions	x	x
B. Lubricate fitting - add grease	x	x
SHIFT UNIT		
A. Check oil level - add if required	x	
B. change oil		x
PRIMING PUMP		
A. Oil rotors	x	x
B. Oil motor bearings	x	x
PRIMING TANK		
A. Check oil level - add if required	x	
B. Change oil		x
PILOT VALVE		
A. Dissassemble, clean and lubricate adjusting stem and nut	x	x
PACKING		
A. Operate pump to wet packing	x	x
B. Oil packing	x	
C. Check packing leakage-adjust as needed	x	x

PUMP MAINTENANCE Continued

PUMP OPERATION

A. Check operation of pump shift	x	x
B. Check pump operation	x	x
C. Operation of relief valve	x	x
D. Back flush tank and pump	x	x

PUMP INSPECTION TESTS

A. DRY VACUUM TEST - REPAIR AS NEEDED	x	x
B. PUMP ACCEPTANCE TEST		
@ 100% for 20 min.		x
@ 75% for 20 min.		x
@ 50% for 20 min. (repair as needed)		x

CHASSIS LUBRICATION

SPRING PIN	x	x
SLACK ADJUSTER	x	x
KING PIN	x	x
BRAKE CAM SHAFT	x	x
TIE ROD BALL JOINTS	x	x
WHEEL BEARINGS		
A. Lube	x	
B. Repack		x
"U" JOINTS, SLIP SHAFT	x	x
CARDAN "U" JOINT	x	x
STEERING COLUMN		
A. Grease	x	x
B. Check fluid	x	x
90 DEGREE DRIVE	x	x
CAB LATCHES		
A. Hood latches	x	x
B. Door Hinges	x	x
ENGINE OIL AND FILTER		
A. Take oil sample	x	x
B. Change oil and filter	x	x
C. Check for leaks	x	x
COOLANT SYSTEM		
A. Pressure check system and repair as needed.	x	x
B. Inspect all hoses and repair as needed	x	x
C. Test coolant and corrosion inhibitor		
a. Flush and recharge coolant system		x
b. Change water filter		x

BELTS

A. Check tension, adjust as needed: fan, alternator, power steering	x	x
B. Inspect belts, replace as needed: fan, alternator, power steering	x	x
C. Check play in fan hub and operation	x	x

AIR SYSTEM

A. Inspect air filter	x	x
B. Ether test intake system	x	x
C. Pull inlet test turbo operation	x	x

FUEL SYSTEM

A. Test for leaks	x	x
B. Inspect fuel lines	x	x
C. Change filters	x	x
D. Test fuel tanks for water	x	x

TUNE UP

A. Inspect and adjust governor gap		x
B. Adjust throttle linkage and reset racks		x
C. Inspect overhead and adjust valves and injectors		x
D. Adjust throttle delay or fuel modulator		x
E. Adjust idle and no load	x	x
F. Adjust transmission linkage to governor	x	x

EXHAUST SYSTEM

A. Inspect all clamps and retighten	x	x
B. Manifold gaskets - check and adjust as needed	x	x
C. Muffler, mounting	x	x

BREATHING OPERATION

A. CRANKCASE AND AIRBOX VENTS (INSPECT)	x	x
---	---	---

ENGINE MOUNTING

A. Inspect front and rear mounting retighten bolts	x	x
B. Radiator mounting and shroud alignment	x	x

TRANSMISSION

OIL AND FILTER

A. Oil sample	x	x
B. Change oil and filter		x
C. Inspect lines and cooler mounting	x	x

LINKAGE AND CABLES

A. Adjust as needed	x	x
B. Inspect Modulators	x	x

BATTERIES AND GAUGES		
A. Load test	x	x
B. Fill with distilled water and hydrometer reading	x	x
C. Operation of all gauges	x	x
D. Connection: battery and cables	x	x
REAR AXLE		
A. Fluid level, add if necessary	x	
a. Inspect for leaks	x	x
b. Change fluid and oil sample		x
B. Test pinion shaft for looseness	x	x
C. Inspect breather vent	x	x
EXAMINE DRIVE LINE	x	x
TIGHTEN DIFFERENTIAL MOUNTING BOLTS	x	x
WHEELS		
BRAKES		
A. Inspect brake air lines	x	x
B. Readjust brakes and check maxi adjustment	x	
C. Inspect brake lining		x
WHEEL LUGS		
A. Tighten and replace broke off studs	x	x
TIRE		
A. Check pressure and wear	x	x
<u>CHASSIS</u>		
INSPECT CHASSIS SPRINGS AND SHACKLES		
A. Retorque	x	
TIGHTEN CAB AND BODY BOLTS	x	
TIGHTEN DOGHOUSE BOLTS	x	x
CHECK OPERATION OF CAB JACK		
A. Check fluid - add if necessary	x	x
INSPECT LIGHTS		
A. Replace bulbs as needed	x	x
HORN AND SIREN		
A. check - repair as needed	x	x
INSPECT WIPER BLADES	x	x

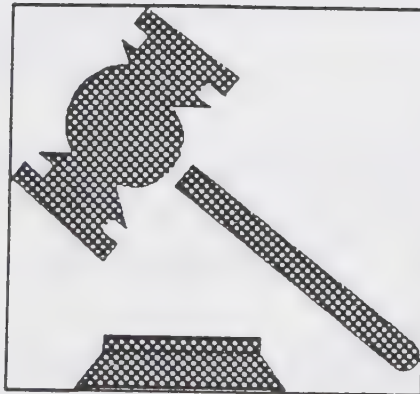
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APPENDIX J

ALAMEDA COUNTY FIRE INVESTIGATION TEAM

ALAMEDA COUNTY

FIRE INVESTIGATION TEAM



OPERATING PROCEDURES

ALAMEDA COUNTY
FIRE INVESTIGATION TEAM

I. PURPOSE

- A. To provide investigative equipment and manpower to jurisdictions of Alameda County in investigative situations that are beyond the local capabilities.
- B. To coordinate the investigative efforts of the fire, police and private sector.
- C. To provide investigative training for the participating jurisdictions in Alameda County.

II. POLICY

- A. To provide a maximum amount of manpower for a minimum amount of time to quickly stabilize and control the fire scene. The mobilization will commence at the request of the designated fire and/or police command officer at the scene.

III. IMPLEMENTATION

- A. The Fire Investigation Team will consist of twenty-three [23] fire personnel and seventeen [17] police personnel. The Investigation Team coordinator (ITC) will be a member of the District Attorney's Investigative Division.
- B. The ITC will possess the names and telephone numbers of all team members.
 - 1. The team designees must presently be assigned to the fire prevention bureau or detective division of their respective departments.
 - 2. The team designees must be qualified cause and origin investigators or criminal investigators.
 - 3. The team designees are to be committed to the investigation team for at least two [2] years.

4. The team designees must have a desire to be members of the Fire Investigation Team.
- C. Each department shall forward the name of the designee to the ITC.
1. The ITC will make contact with the designee to clarify all operations of the team to assure complete understanding.
 2. After assignment to the team a meeting will be set with the member and his supervisor to assure understanding of participation.

IV. TRAINING

- A. Team training will be made available to all team members and to a representative of departments not represented on the Fire Investigation Team. The training will be local, intensive and on a short term basis, using:
1. District Attorney's Office
 2. U.S. Treasury Department, Bureau of ATF
 3. Local Police and Fire Agencies
 4. Others as developed
- B. Training will result as needs are determined based on past operations or new innovations deemed appropriate.
- C. Training will not be on a regularly scheduled basis.

V. OPERATION

- A. If investigative assistance is desired in any jurisdiction, the following steps should be taken:
1. Investigative assistance may be requested by the fire or police department and shall be made by the Fire or Police Chief or his authorized representative through the County Fire ITC providing:
 - a. Jurisdiction from which assistance is being requested.
 - b. The nature of the request.

2. The ITC will meet with the department command officer at the scene where a joint determination will be made as to the number of **team members** needed.
3. The ITC shall notify the necessary **team members**, assuring that none have been involved in the most recent past operation, providing the following:
 - a. Assembly time and location.
 - b. Nature of the request.
 - c. Specific equipment or clothing attire needed, if any.
4. The **team member** will notify his supervisor that his assistance has been requested, the location of the request and confirmation of his availability.
5. The **team member** will then re-contact the ITC advising his availability or unavailability.
6. If available, the **team member** will report to the assembly location where he will receive:
 - a. A briefing as to the scene and type of structure.
 - b. His job assignment for this operation:
 - (1) Immediate scene search
 - (2) Photographer
 - (3) Evidence Technician
 - (4) Schematic diagrammer
 - (5) Interview team
 - (6) Equipment operator
 - (7) Other as needed
 - c. The requesting jurisdiction's fire and police investigators will be the primary investigators for the operation.

- d. The requesting jurisdiction's fire and/or police departments are responsible for securing the fire scene until the arrival of the Fire Investigation Team and during the hours the Team is not on the scene.
- e. A briefing will be held at the end of each work day involving all **team members** on the operation.
- (1) A final briefing will be held at the conclusion of the operation to assure uniformity as to the determination of the cause and origin of the fire.
- f. All press releases will be handled by the designated officer of the requesting jurisdiction.
7. All reports compiled by members of the team from other jurisdictions will be completed within twenty-four [24] hours and forwarded to the ITC who will take them immediately to the primary police investigator on the case.
8. The investigative team assistance is primarily intended for fire scene investigation and interviews. Multi-jurisdiction investigations may involve some additional follow-up such as surveillance; however, these operations shall be on a very limited basis and shall use members receiving previous approval of their agency commander only.
9. The ITC shall release the assisting **team members** as soon as possible from the operation.
10. The present ITC may be reached on a twenty-four hour basis via the Alameda County Sheriff's **radio number 667-7778** or **pager number 448-0957**.

VI. CONCLUSION

- A. The use of the Fire Investigation Team is not meant to be mandatory on any jurisdiction, but is a **resource** to be used as assistance only. The only requirement is that the fire be beyond the assumed capabilities of the requesting agency either in manpower or expertise at the time of the request.

APPENDIX K

ALAMEDA COUNTY COMMUNICATIONS (ALCO) AND RADIO FREQUENCIES

ALAMEDA COUNTY COMMUNICATIONS (ALCO) SYSTEM

ALCO provides computer aided dispatch services for CVFPD, ECFPD, O.E.S., FFPD, and CFP. The dispatch center is operated by the Sheriff's Department and is located at the county facility on 150th avenue in San Leandro. The center also coordinates the dispatching of CDF and the ambulance company.

This facility is the Public Safety Answering Point (PSAP) for all calls originating in the unincorporated areas. The facility also coordinates with 11 other PSAPs within the county.

Performance standards have not been developed and adopted which establish maximum times for answering calls or completing dispatch functions. However, periodic reports are prepared by ALCO which identify dispatch activities and some dispatch times.

A users committee has been formed which meets bi-monthly to establish policies and correct deficiencies.

Dispatch and arrival times of the Regional Ambulance company units are monitored by the County Health Departments EMS division. This dispatch data is available to fire departments through the county EMS division.

All county fire districts, the County Fire Patrol and the O.E.S. fire department operate on the county fire radio frequency. All fire departments can communicate on mutual aid responses through the use of the state-wide mutual aid fire frequency. (See attached list of radio frequencies by agency)

Training for new dispatchers is conducted by the communications center staff. Specific training in fire department operations is not provided. Periodic major fire incident training exercises to maintain dispatching skills related to large incident operations are not conducted.

APPENDIX K

COMMUNICATIONS

Radio Frequencies

		Castro Valley	Eden	Fire Patrol	Fairview	CDF	OES	Hayward	Livermore	Pleasanton	San Leandro
151.295			x								
151.445					x						
153.785			x								
154.070	County Fire	x	x	x	x		x	x	x	x	x
154.235		x	x	x	x		x		x		
154.265		x	x		x						
154.280	State-wide										
	Mutual Aid	x	x	x	x	x	x	x	x	x	x
154.295		x			x						
154.355			x								
154.650					x						
155.40		x									
155.955							x				
156.075					x						
465.600	Hayward							x			
	Primary										

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APPENDIX L

COUNTY EMERGENCY MEDICAL SERVICES

The fire departments serving the unincorporated areas participate in the county emergency medical system as first responders. An agreement has been developed with each fire agency. This appendix contains a sample of these agreements. A description of the supplemental assessment funds which are available to fire departments through this program is also described in this section.

APPROVED AS TO FORM:
KELVIN BOOTY, County Counsel

By: _____
Deputy County Counsel

FIRST RESPONDER AGREEMENT

This Agreement, made and entered into this ____ day of _____, 1990, by and between the COUNTY OF ALAMEDA, hereinafter referred to as "COUNTY" and the Eden Consolidated Fire District, hereinafter referred to as "FIRE DISTRICT."

WITNESSETH:

WHEREAS, COUNTY has established a local EMS agency as authorized by the Health and Safety Code Section 1797.200;

WHEREAS, the COUNTY has established an Emergency Medical Service District (EM-1983-1) to provide emergency paramedic ambulance service within its jurisdiction;

WHEREAS, the FIRE DISTRICT is willing to provide first response to requests for emergency medical assistance in Alameda County, in order to perform emergency first aid and basic life support prior to arrival of the ambulance;

WHEREAS, the FIRE DISTRICT and COUNTY find it in the public interest to enhance the availability of Emergency Medical Services (EMS) within the FIRE DISTRICT'S jurisdiction; and

WHEREAS, the FIRE DISTRICT intends to add the optional defibrillation skill as permitted by State laws and regulations requiring the approval and monitoring of the local EMS agency;

NOW, THEREFORE, IT IS HEREBY MUTUALLY AGREED AS FOLLOWS:

Section 1. Term of Agreement

A. This Agreement shall be effective July 1, 1990, and shall remain in effect from year-to-year thereafter.

B. This Agreement may be terminated on June 30 with 30 days written notice, or at any other time of the year with 90 days written notice.

Section 2. Definitions

For the purposes of this Agreement, the following words and phrases shall have the meanings respectively ascribed to them by this section:

A. Advanced Life Support - Special services designed to provide definitive prehospital emergency medical care as defined in Health and Safety Code Section 1797.52, including, but not limited to, cardiopulmonary resuscitation, cardiac monitoring, cardiac defibrillation, advanced airway management, intravenous therapy, administration of specified drugs and other medicinal preparations, and other specified techniques and procedures administered by authorized personnel under the direct supervision of a base hospital.

B. ALCO-CMED - The facility designated by the COUNTY as the central communications center from which ambulance requests may be processed and routed to the CONTRACTOR.

C. Ambulance - Any motor vehicle equipped with facilities to convey infirm or injured persons in a reclining position and licensed as an ambulance by the California Highway Patrol.

D. Ambulance Unit - An ambulance staffed with qualified personnel and equipped with appropriate medical equipment and supplies.

E. Basic Life Support (BLS) - as defined in Health and Safety Code Section 1797.60.

F. Basic Life Support Unit (BLS Unit) - An ambulance unit limited by staffing and/or equipment to provide only basic life support at the scene of a medical emergency and during transport of a patient(s) experiencing a medical emergency.

G. Call Prioritizing - as defined in the Emergency Medical Services Authority, "Emergency Medical Dispatcher Training Guidelines" for Level II emergency medical dispatching. In call prioritizing, the dispatcher determines through key questions whether a call is life threatening or non-life threatening emergency. In all cases, a medical response is sent. Call prioritizing also includes pre-arrival instructions.

H. Emergency Medical Dispatch - A COUNTY approved system whereby specially trained dispatchers, called Emergency Medical Dispatchers use key questions to perform call prioritization, and give pre-arrival and treatment instructions.

I. Emergency Medical Dispatcher or EMD - A person, employed by an agency providing emergency medical dispatch service, certified or authorized by the County Health Officer as defined in the Alameda County EMS Policy Manual.

- J. Emergency - Any sudden or serious illness or injury requiring immediate medical or psychiatric attention under circumstances that delay in providing such services may aggravate the medical condition or cause the loss of life; furthermore, any case declared to be an emergency by a physician or any case in which a patient has been ordered transported for psychiatric observation under Welfare and Institutions Code Section 5150.
- K. Emergency Medical Technician - I(A) - or EMT-I(A) - Ambulance personnel as defined in the Health and Safety Code Section 1797.80.
- L. Emergency Medical Technician - Paramedic - or EMT-P - Ambulance personnel as defined in the Health and Safety Code Section 1797.84.
- M. First Responder - A fire department vehicle, police vehicle or non-transporting ambulance unit with personnel capable of providing appropriate prehospital care.
- N. Key Questions - County approved reference system used by an emergency medical dispatch services including, but not limited to, systematized caller interrogation for call prioritization.
- O. Paramedic Unit - An ambulance unit staffed and equipped to provide advanced life support at the scene of a medical emergency and during transport of a patient(s), and designated as a paramedic unit by the Medical Director.
- P. Pre-Arrival Instructions/Treatment Instructions - Instructions given by an emergency medical dispatcher, using pre-established guidelines, to a caller to assist the caller in preventing the patient from further injuring himself and to enable the caller to help a victim in a life-threatening situation.
- Q. Public Safety Officer - Any person designated as a public safety officer by the law of the State of California.
- R. Standby Service - The dispatch of an emergency ambulance unit(s) by ALCO-CMED or other PSAP authorized by Contract Administrator at the specific request of a public safety agency to a position of immediate availability. Standby service will be counted as an emergency response.

Section 3. FIRE DISTRICT Services

- A. The FIRE DISTRICT agrees to follow the COUNTY guidelines for handling all medical calls received at their Public Safety Answering Point.
- B. The FIRE DISTRICT shall immediately relay to ALCO-CMED or designated dispatch center all requests for emergency ambulance services received by its public safety agencies. FIRE DISTRICT shall respond as directed by designated EMD provider when that service is provided by the COUNTY.
- C. The FIRE DISTRICT'S Fire Department shall respond according to its custom, practices, procedures, and capabilities, and assist as needed at the scene of a medical emergency when notified of such an emergency. The FIRE DISTRICT reserves the right to cancel first responder responsibilities under conditions of limited resources and will so notify COUNTY when this occurs and when first responder responsibilities are resumed.

D. The FIRE DISTRICT shall undertake to train and cause to be certified as Emergency Medical Technician-Is (EMT-I) personnel who are regularly dispatched as first responders on medical emergencies.

E. The FIRE DISTRICT shall adhere to the policies and procedures established by the County Health Officer located in the Alameda County Emergency Medical Services Policy Manual.

F. The FIRE DISTRICT agrees to complete a First Responder Prehospital Care Report on a form provided by the COUNTY in accordance with medical policies established by the County Health Officer.

G. The FIRE DISTRICT agrees to participate in meetings and committees sponsored by COUNTY related to EMS activities, when available.

H. The FIRE DISTRICT shall conduct and participate in Quality Assurance activities as defined in the Alameda County Emergency Medical Services Policy Manual.

Section 4. COUNTY Services

A. The COUNTY shall secure the services of an ambulance contractor(s) to provide Advanced Life Support (ALS) ambulance services to serve the District which includes the territory of the FIRE DISTRICT.

B. The COUNTY shall provide the services of an emergency medical dispatch center for dispatch and coordination of emergency ambulance services and shall provide communications as required between the COUNTY and the FIRE DISTRICT'S "911" Public Safety Answering Point (PSAP).

C. The COUNTY shall monitor the quality of ambulance services including the response times specified in the emergency ambulance agreement, personnel, equipment, procedures, and billing practices.

D. The COUNTY shall provide, through its Emergency Ambulance Service Agreements and subject to availability of a contract ambulance, standby ambulance service upon the request of the FIRE DISTRICT'S public safety agency at no charge to the FIRE DISTRICT.

Section 5. Access to Records and Documents

A. The FIRE DISTRICT shall make reasonable efforts to assist the COUNTY in collection of statistical data regarding the FIRE DISTRICT responses to medical emergencies.

B. The COUNTY shall establish allowable charges for private billings applicable to COUNTY-contract emergency ambulance services. The FIRE DISTRICT shall be provided with the current billing rates upon request.

C. The COUNTY shall provide the FIRE DISTRICT with copies of EMS Policy Manual and any revisions thereof, and shall consult with FIRE DISTRICT when formulating any policies relating to the interface of the EMS system with public safety agencies.

D. The COUNTY shall provide the CONTRACTOR with the annual budget for the EMS District if requested.

Section 6. First Responder Funds

A. The COUNTY shall reimburse the FIRE DISTRICT up to the maximum amount shown in Exhibit A for:

- 1) EMT-I and related medical training of first responder personnel;
- 2) purchase and maintenance of medical equipment approved by the COUNTY for use by first responders; and
- 3) for such other purposes as may be approved by the COUNTY related to first responder services.

B. Expenditures for wage or benefits paid first responder personnel shall not be eligible for reimbursement.

C. The Board of Supervisors shall for each fiscal year set the total allocation for First Responder Funds, if any, according to COUNTY's budgeting policies and practices.

D. The FIRE DISTRICT shall create a separate account for EMS funds. These funds will not be transferred into the FIRE DISTRICT's general fund at the end of the fiscal year.

E. The COUNTY will annually audit the expenditures of funds. The FIRE DISTRICT will submit claims and supporting documentation as may be reasonably required by the COUNTY.

F. The County shall have the right to delay or deny future payment of funds in the event the FIRE DISTRICT utilizes the funds for unauthorized materials or services.

Section 6a. Supplemental Assessment Funds (Option)

A. At the request of the FIRE DISTRICT, the Board of Supervisors, may agree to collect additional funds via the EMS Benefit Assessment District. These funds shown in Exhibit A-1, will be utilized only for approved Emergency Medical Service purposes.

Annually, the FIRE DISTRICT shall provide written documentation prior to June 30 requesting continuance of the supplemental Assessment.

B. The FIRE DISTRICT will submit for approval by the Contract Administrator, a plan for the spending of supplemental assessment funds.

C. Documentation, audit and payment of the supplemental assessment funds will be the same as for the First Responder Funds.

D. The County shall have the right to delay or deny future payment of funds in the event the FIRE DISTRICT utilizes the funds for unauthorized purposes.

Section 7. Private Ambulance Provider's Use of Fire Personnel

A. COUNTY-contract ambulance provider may utilize FIRE DISTRICT fire personnel for transport to the hospital in the following circumstances only:

- 1) Patient is "Code Blue".
- 2) Critical pediatric patient requiring airway management and other ALS intervention.
- 3) Multicasualty incident requiring maximal use of ambulance units.
- 4) Critical patient with an unmanageable airway.

B. COUNTY-contract ambulance provider use of fire personnel for transport of any patient in circumstances other than those listed above will be subject to a \$300.00 per hour penalty per incident but only if a fire unit is put out of service thereby.

C. The Contract Administrator shall establish the procedure and content for the establishment and payment of an "Inappropriate Use of Firefighter" claim for reimbursement to the City from the COUNTY-contracted ambulance provider.

D. The COUNTY shall ensure that, when FIRE DISTRICT public safety personnel accompany a patient to the hospital in a COUNTY-contract ambulance to assist with patient care, the ambulance contractor shall make all reasonable efforts to return said personnel promptly to their station or vehicle location.

Section 8. Optional Defibrillation Skill Program

1. FIRE DISTRICT shall submit for the approval of the EMS Medical Director a plan for development and operation of the optional defibrillation skill program by FIRE DISTRICT'S Fire Department in accordance with State laws, regulations and COUNTY policies and procedures.

2. COUNTY shall, following approval of such plan, monitor and evaluate the optional defibrillation services provided by FIRE DISTRICT.

3. FIRE DISTRICT shall provide in a timely and regular manner records, information and reports as required or requested by EMS Medical Director in order for COUNTY to monitor and evaluate the optional defibrillation provided by FIRE DISTRICT.

4. Nothing herein shall preclude the EMS Medical Director from suspending at any time for cause, approval of the defibrillation program. Cause is defined as non-compliance with established laws, regulations and protocols.

5. Upon program approval, the COUNTY agrees to make available for the FIRE DISTRICT's use, defibrillators that meet the COUNTY requirements. The number of units made available will be determined by the Contract Administrator.

6. The COUNTY agrees to provide reasonable equipment maintainance and equipment exchange for defibrillators when they require maintainance or service.

7. The COUNTY will provide 115 percent of the electrodes required by the FIRE DISTRICT for direct patient use. The COUNTY will charge the FIRE DISTRICT the cost of any additional electrodes or at the FIRE DISTRICT'S option, the City may obtain its own electrodes.

Section 9. Restricted Activities

1. The FIRE DISTRICT will not initiate Emergency Medical Dispatch without written approval of the COUNTY.

Section 10 Insurance and Indemnification

The FIRE DISTRICT agrees to indemnify and to save and hold harmless the COUNTY and its officers and employees from and against all claims, costs, demands, causes of action, suits, losses, expenses, or other detriment or liability arising from or out of FIRE DISTRICT'S performance of this Agreement.

The COUNTY agrees to indemnify and to save and hold harmless the FIRE DISTRICT and its officers and employees from and against all claims, costs, demands, causes of action, suits, losses, expenses, or other detriment or liability arising from or out of COUNTY'S performance of this Agreement.

Section 11. Compliance with Laws and Safety

A. FIRE DISTRICT shall observe and comply with all applicable laws, ordinances, codes and regulations of governmental agencies, including federal, state, municipal, and local governing bodies, having jurisdiction over the scope of services or any part hereof, including all provisions of the Occupational Safety and Health Act of 1979 and all amendments thereto, and all applicable federal, state, municipal, and local safety regulation. All services performed by FIRE DISTRICT must be in accordance with these laws ordinances, codes and regulations.

B. Accidents: If a death, serious personal injury or substantial property damage occurs in connection with the performance of this Agreement, FIRE DISTRICT shall follow the Emergency Medical Services Policy for unusual occurrences. FIRE DISTRICT shall promptly submit to EMS a written report, in such form as may be required by EMS of all accidents which occur in connection with this contract. This report must include the following information: (1) name and address of the injured or deceased person(s); (2) name and address of FIRE DISTRICT's subcontractor, if any; (3) name and address of FIRE DISTRICT's liability insurance carrier; and (4) a detailed description of accident and whether any of EMS' equipment, tools, material, or staff were involved.

Section 12. Non-Discrimination

FIRE DISTRICT assures that he/she will comply with Title VII of the Civil Rights Act of 1964 and that no person shall, on the grounds of race, creed, color, disability, sex, sexual orientation or national origin, age, religion, vietnam-era Veteran's status, political affiliation, or any other non-merit factors be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under this Agreement.

Section 13. Program Approval

Nothing herein shall imply COUNTY approval of any program, status or designation of FIRE DISTRICT not specifically approved herein.

Section 14. Modification of Agreement

From time to time, amendments or modifications to the provisions of this Agreement may be initiated by either party hereto and may be incorporated into this Agreement by mutual consent and in writing as evidenced by resolution of the Board of Supervisors approving such modification.

IN WITNESS WHEREOF, the parties have executed this Agreement the date and year first above written.

COUNTY OF ALAMEDA

CONTRACTOR

By _____
Chairman, Board of Supervisors

Date _____

By _____

Title _____

Address _____

4825z

First Responder Funds

1. The maximum First Responder Funds to the FIRE DISTRICT for a fiscal year shall be that amount which bears the same ratio to the total dollar amount allocated by the Board of Supervisors for first responder training and equipment as the ratio of benefit units within the territory of the FIRE DISTRICT bears to the total number of benefit units for the EMS District.

For fiscal year 1990/91, the maximum reimbursement to the FIRE DISTRICT has been calculated as follows:

To be set each fiscal year	Numbers applicable to FIRE DISTRICT	
$\frac{\$236,831 \text{ total}}{\text{allocation}}$	$\times \frac{24,365 \text{ benefit units}}{509,167 \text{ total benefit units}}$	$= \frac{\$11,344 \text{ maximum}}{\text{reimbursement}}$

2. These funds are payable to the FIRE DISTRICT in two equal installments upon invoicing the COUNTY on December 31 and June 30.

Supplemental Assessment Funds

1. At Eden Consolidated Fire District's request, the COUNTY has established a supplemental assessment in the Eden Consolidated Fire District to offset the costs of providing Emergency Medical Services. The COUNTY shall pay the FIRE DISTRICT \$4.46 per benefit assessment unit minus a 1.7% service charge required by the auditor's office for the collection of the supplemental assessment.

The supplemental assessment will be determined by the following formula:

Supplemental = \$4.46 X Number of benefit units - 1.7% Assessor's
Assessment in Eden Consolidated Fire District Fees

2. These funds are payable to the FIRE DISTRICT in two equal installments upon invoicing the COUNTY on December 31 and June 30.

4818z

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FIRST RESPONDER UNITS AND AMOUNTS FY 90/91 October 5, 1990
 from Data Processing report dated 8/30/90

Jurisdiction	Benefit Units	Percent	Allocation
Albany	7.003	1.38	\$3,268.00
Berkeley	50.852	9.99	\$23,659.00
Dublin	7.917	1.55	\$3,671.00
Emeryville	4.972	.98	\$2,321.00
Fremont	66,198	13.00	\$30,788.00 .
Hayward	44,651	8.77	\$20,770.00
Livermore	22,525	4.42	\$10,468.00
Newark	13.241	2.60	\$6,158.00
Oakland	169.582	33.31	\$78,888.00
Piedmont	3.921	.77	\$1,824.00
Pleasanton	19.573	3.84	\$9,094.00
San Leandro	32.788	6.44	\$15,252.00
Union City	16.202	3.18	\$7,531.00
Castro Val FD	18,598	3.65	\$8,644.00
Eden Cons FD	24,365	4.79	\$11,344.00
Fairview FD	3.273	.64	\$1,516.00
other unincorp	3,506	.69	\$1,635.00
TOTALS	509,167	100.00	\$236,831.00

APPENDIX M

AUTOMATIC AID AGREEMENT

This appendix contains a copy of the automatic aid agreement which has been implemented between ECFPD AND CVFPD.

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AUTO
MUTUAL AID FIRE PROTECTION AGREEMENT

THIS AGREEMENT, made and entered into this _____ day of _____, 1986, for convenience, by and between Castro Valley Fire Protection District, hereinafter referred to as "First Party" and the Eden Consolidated Fire Protection District hereinafter referred to as "Second Party",

W I T N E S S E T H:

WHEREAS, the parties hereto are geographically located in proximity to each other in the County of Alameda; and

WHEREAS, it is to the mutual advantage and benefit of the parties hereto that each of the other parties agree to render supplemental fire protection assistance consisting of fire suppression, rescue and emergency medical service, hereafter referred to as "emergency service", through their respective fire departments in the event of fire occurring at certain address within the jurisdictions of the parties; and

WHEREAS, pursuant to Section 55632 et seq of the Government Code the parties hereto may by agreement provide for exchange of fire protection services between said parties under the conditions and for purposes stated herein and are desirous of contracting for such "day-to-day mutual aid" services:

NOW, THEREFORE, in consideration of their mutual covenants, the parties hereto agree as follows:

1. Addresses Affected. In the event of any fire, disturbance or local emergency requiring fire department emergency services in the geographical area described in Attachment 1, joint response will be made by the parties hereto.

2. Joint Response. Joint response by the parties hereto shall be provided as set forth on Attachment 2.

3. Incident Command. Command personnel and equipment at the scene of the emergency shall be provided as set forth on Attachment 3.

4. Training. The parties will conduct joint training exercises as mutually agreed upon by the Fire Chief of each party. This training shall be limited to activities designed to enhance the ability of the parties to act in their joint service role.

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5. Dispatch. ALCO dispatch center on receiving notification of a need for emergency service in the above-described area shall notify both districts. Responding companies shall announce their response on radio frequency 154.070.

6. Compensation. No party to this agreement shall be required to pay any compensation to any other party to this agreement for services rendered hereunder, the mutual advantages and protections afforded by this agreement being considered adequate compensation to all of the parties.

7. Privileges, Immunities, Benefits. Pursuant to Government Code Section 55634, all the privileges and immunities from liability, exemptions from laws and rules, and all pension, relief, disability, workers' compensation and all other benefits granted either party's fire force shall apply and extend to its fireforce while performing functions pursuant to this agreement within the territorial limits of the other party, and while traveling to and from such other party's territorial limits in the performance of this agreement.

8. This agreement may be terminated by either party hereto upon thirty (30) days written notice to the other party of its intention to terminate. In the event of such notice this agreement and all rights and obligations arising hereunder shall terminate thirty (30) days following receipt of such notice.

9. Indemnification/Hold Harmless. Each party agrees to indemnify, hold harmless and defend the other party for all claims and liability arising out of its own negligent acts or omissions in connection with the performance of this agreement.

10. Conflict of Simultaneous Needs. It is mutually understood and agreed that this agreement is not intended to relieve either of the parties hereto from the primary obligation of providing complete fire protection services within its area. It is understood and agreed that in the event of any conflict of simultaneous needs, each party hereto shall satisfy the needs of its own first.

11. Not a Third Party Beneficiary Agreement. This agreement shall not be construed as or deemed to be an agreement for the benefit of any third party or parties, and no third party or parties shall have any right of action hereunder for any cause whatsoever. Any service performed or expenditures made in connection with furnishing mutual aid under this agreement by either party hereto be deemed conclusively to be for the direct protection and benefit of the inhabitants and property of such party.

IN WITNESS WHEREOF, this agreement has been executed by the parties hereto.

"FIRST PARTY"
CASTRO VALLEY FIRE PROT. DIST.

By _____
BOARD OF SUPERVISORS.

"SECOND PARTY"
EDEN CONSOLIDATED FIRE PROT DIST.

By _____
BOARD OF SUPERVISORS.

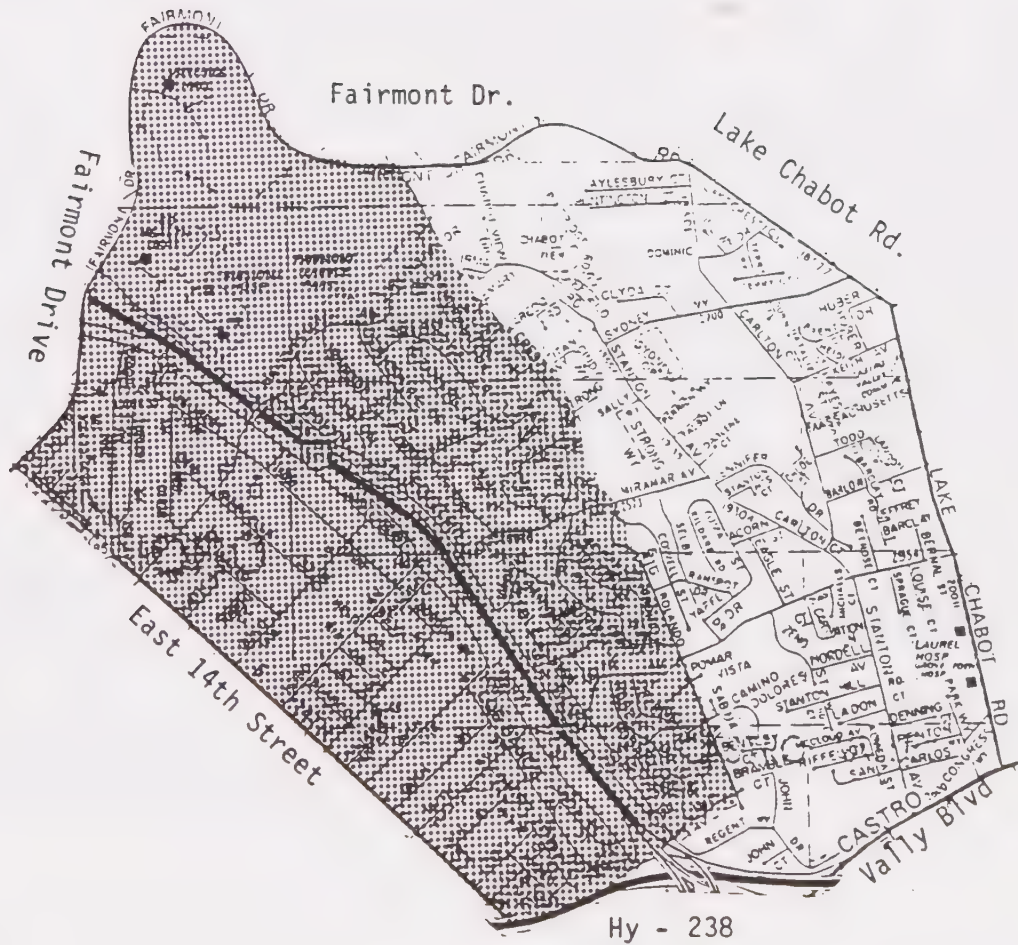
APPROVED AS TO FORM

COUNTY COUNSEL.

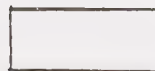
ATTACHMENT 1

Streets & Addresses Effected. All streets and addresses within the following boundry limits:

Fairmont Drive from East 14th. Street to Lake Chabot Road as the North Boundry. Lake Chabot Road from Fairmont Drive to Castro Valley Blvd. as the East boundry. Castro Valley Blvd. from Lake Chabot Road to highway #238, and highway #238 from Castro Valley Blvd. to Mission Blvd/East 14th. Street as the South boundry. East 14th. Street from highway #238 to Fairmont Drive as the West boundry.



CASTRO VALLEY FIRE PROTECTION DISTRICT



EDEN CONSOLIDATED FIRE PROTECTION DISTRICT



ATTACHMENT 2

Joint Response.

1. Structure Fires.

A. From Castro Valley Fire Department, response shall consist of one engine company, one truck company, and one Battalion Chief.

B. From Eden Consolidated Fire Protection District, response shall consist of two engine companies and one Battalion Chief.

2. Rescue, Emergency Medical Services, Automobile and Fires Outside Structures.

A. From Castro Valley Fire Department, response shall consist of one engine company, and, upon the request of its responding engine company commander, one truck company.

B. From Eden Consolidated Fire Protection District, response shall consist of one engine company, and, upon request of its responding engine company commander, a second engine company.

3. Greater Alarms.

Any response required in excess of those described above shall be deemed "greater alarm", and shall be addressed under the procedures agreed upon in the Alameda County Mutual Aid Agreements rather than this agreement.

ATTACHMENT 3

1. Incident Command

The first company commander on the scene will take command of the incident and determine to the best of his or her ability which party has responsibility over the incident and so advise other units via the frequency number 154.070. Responsibility refers to governmental jurisdiction over the location.

2. Structure Fires.

a. The first company commander shall command until the arrival of the first Battalion Chief who shall assume command.

b. The Battalion Chief of the responsible party shall in every circumstance continue to the scene of the incident and assume command regardless of the number of units being utilized to control the incident.

3. Rescue, Emergency Medical Services, Automobile Fires Outside of Structures.

For responses which do not include a Battalion Chief, the first arriving company commander shall hold command until the arrival of the first company commander of the responsible party who shall assume command.

4. If the responsible party is so committed to another incident as to preclude its response, the responding party shall retain command and complete reports as if the incident were in its region of responsibility, advising the responsible party when feasible.

5. The foregoing notwithstanding, the commanding officer of each party shall retain ultimate control of that party's personnel and equipment.

APPENDIX N

SOUTH ZONE MUTUAL AID AGREEMENT

South Zone Mutual Aid Agreement

FIRE SERVICE MUTUAL AID AGREEMENT
SOUTH ZONE
ALAMEDA COUNTY

1. PARTIES. This Agreement dated _____, is between parties listed in Section 16.

2. PURPOSES.

Certain conditions providing the potential for widespread, large fires, conditions requiring large amounts of fire and rescue resources, or depleted fire and rescue resources which constitute hazards to life and property can occur with various areas in the South Zone of Alameda County. When the fire protection and rescue resources of any area are depleted, the combined resources of several agencies may be required to provide a necessary level of fire protection capabilities within the affected area. These parties desire to, and shall when so requested, furnish fire and rescue assistance to one another in accordance with the California Emergency Services Act, Government Code Section 8550 et. seq., the California Mutual Aid Agreement, and the California Emergency Services Plan.

3. ORGANIZATION.

This Agreement will be implemented by use of the South Zone Mutual Aid Plan of Alameda County, which has been developed and approved by mutual consent of all the Fire Chiefs of the parties hereto. This plan may be amended by mutual consent of all of the Fire Chiefs of the parties hereto. The Fire Chiefs shall meet regularly to incorporate new procedures, and to modify the plan as necessary due to changing circumstances within the South Zone of Alameda County.

4. REQUEST FOR MUTUAL AID.

To insure orderly and coordinated use of fire resources, all requests for mutual aid, under this agreement, shall be made to the South Zone Mutual Aid Department or their appointed representative, as elected by the Fire Chiefs of the parties hereto.

Any party's Fire Chief (or in his absence, his appointed representative) may request the implementation of the South Zone Mutual Aid Plan when, in his opinion, the fire and rescue resources of the area are insufficient to cope with existing emergency(ies) and provide for a minimum operating reserve. Requests to the South Zone Mutual Aid Department shall be made when, in the opinion of any party's Fire Chief (or in his absence, his appointed representative), the potential of need for mutual aid exists.

5. RESPONSE TO REQUEST.

The Fire Chief of the party from whom mutual aid is requested shall comply with the request wholly or in part when:

(a) The specific assistance requested is clearly referred by the South Zone Mutual Aid Department and

(b) Compliance will not deplete resources of the agency below the level the providing Fire Chief feels reasonable for the situation in his jurisdiction at the time.

6. LIMITATION ON REQUESTS.

It is not the intent of the Mutual Aid Plan to provide the "day-to-day full and continuing fire protection" to an affected jurisdiction or area. The affected jurisdiction or area, shall have committed its fire and rescue resources to such an extent that in the Fire Chief's opinion he can no longer provide reasonable protection to his jurisdiction.

7. ASSISTANCE NOT MANDATORY.

The rendering of mutual aid hereunder shall not be mandatory, but the party receiving the request for assistance shall immediately inform the South Zone Mutual Aid Department if, for any reason, assistance cannot be rendered.

8. NO COMPENSATION.

With the exception of highly specialized resources, such as bulldozers and air attack equipment, all services rendered under this Agreement shall be performed without reimbursement to the participating party or parties hereto, in consideration of their mutual promises and services; each party shall bear its own costs hereunder. However, nothing herein precludes any party from claiming from another agency not a party to this Agreement such payment or reimbursement as it may be legally entitled to.

9. WAIVER.

Each party hereto waives all claims against any other participating party for compensation for any loss, damage, personal injury, or death which may arise due to conformance, or lack of conformance, under this Agreement.

10. ADMINISTRATIVE.

The Fire Chief of _____ is hereby designated as Administrator of this Agreement. Unless otherwise provided, notice under this Agreement may be given in writing to said Administrator.

April, 1988.

11. EFFECTIVE DATE.

This Agreement becomes effective as to each party when signed by the person authorized by its respective governing body and filed with the Administrator. Any fire protection agency not listed in Section 16 may become a party to this Agreement by an amendment hereto including it as a party, effective when approved by the governing body of all other parties.

12. NOTICE TO PARTIES.

Upon receipt of a certified copy of the minutes, order or resolution authorizing or terminating a party's participation in the Agreement, the Administrator shall immediately notify the Fire Chief of all other parties.

13. TERMINATION.

Any party may terminate its participation in this Agreement by filing, with the Administrator, a certified copy of the resolution of termination adopted by the governing body. Such termination shall be effective 30 days after such filing.

14. DIRECTION OF WORK.

The Fire Chief of the requesting party has authority and responsibility to assign and direct resources made available hereunder by the parties in accordance with the South Zone Mutual Aid Plan.

15. INSUFFICIENT RESOURCES WITHIN THE SOUTH ZONE.

Except as provided in Section 5, when the resources of all parties are committed to the extent available, but are found to be insufficient to cope with the emergency condition, the South Zone Mutual Aid Department has the authority and responsibility for overall fire coordination, procurement and assignment of fire resources, and is also responsible for obtaining additional assistance through the Alameda County Fire Coordinator.

16. PARTIES ELIGIBLE TO PARTICIPATE.

The following are eligible to participate in this Agreement:

CASTRO VALLEY FIRE PROTECTION DISTRICT:

by: _____
Robert Waberski, Fire Chief

Date: _____, 1988.

EDEN CONSOLIDATED FIRE PROTECTION DISTRICT:

by: _____
Eugene Walker, Fire Chief

Date: _____, 1988.

FAIRVIEW FIRE PROTECTION DISTRICT:

by: _____
Ralph K. Yunghans, Fire Chief

Date: _____, 1988.

FREMONT, CITY OF:

by: _____
Daniel T. Lydon, Fire Chief

Date: _____, 1988.

HAYWARD, CITY OF:

by: _____
Richard Minor, Fire Chief

Date: _____, 1988.

510
NEWARK, CITY OF:

by: _____
Dennis Leonesio, Fire Chief

Date: _____, 1988.

SAN LEANDRO, CITY OF:

by: _____
Bruce Simons, Fire Chief

Date: _____, 1988.

UNION CITY, CITY OF:

by: _____
Michael Vonada, Fire Chief

Date: _____, 1988.

April, 1988

STRUCTURE RESPONSE

to Castro Valley

Alarm	Engines	Trucks	Chiefs	Move-up	Other
3	EDEN HAYWARD HAYWARD	HAYWARD SAN LEANDRO	HAYWARD		Mobile Air Compressor NEWARK
4	SAN LEANDRO FAIRVIEW FREMONT	UNION CITY FREMONT	SAN LEANDRO		

April, 1988

WILDLAND RESPONSE

to Castro Valley

Alarm	Engines	Chiefs	Patrols	Move-up	Other
3	EDEN HAYWARD HAYWARD HAYWARD SAN LEANDRO	HAYWARD			
4	FAIRVIEW UNION CITY FREMONT FREMONT FREMONT	FREMONT			

APPENDIX O

1990/91 CONTRACT WITH THE CALIFORNIA DEPARTMENT OF FORESTRY

MEMORANDUM

TO: Board of Supervisors

FROM: Richard J. Clanton
Fire District Administrator

Subject:

Agreement with California Department of Forestry & Fire Protection

Prepared by

Reviewed by

RECOMMENDED ACTION:

It is recommended that the Board of Supervisors, sitting as the governing body of Alameda County, approve the attached agreement to provide increased fire protection services between the Alameda County and the State of California Department of Forestry and Fire Protection (CDF) for fiscal year 1990/91.

FISCAL IMPACT:

Funds have already been appropriated for this purpose.

REASON FOR RECOMMENDATION:

The most recent agreement expires June 30, 1990. A new agreement must be approved in order to assure the continuation of fire protection services in the Sunol Area.

CONSEQUENCES OF NEGATIVE ACTION:

The Sunol Area of Alameda County will have to find other alternatives to secure fire protection.

STEPS FOLLOWING APPROVAL:

The Clerk should send the original and five copies of the signed agreement with original signatures to the California Department of Forestry and Fire Protection, attention Richard J. Clanton, Ranger Unit Chief.

The Clerk should include one original and five copies of the excerpt from the Minutes of the Board's Meeting authorizing and directing the signing of the contract.

Attachment

A COOPERATIVE AGREEMENT
TO PROVIDE FIRE PROTECTION SERVICE
FOR LOCAL AGENCIES

LOCAL AGENCY ALAMEDA COUNTY

THIS AGREEMENT, as authorized in California Public Resources Code Section(s), 4142, is made and entered into this 1st day of July, 1990, by and between the State of California acting through the Director of the Department of Forestry and Fire Protection, hereinafter called DIRECTOR and/or STATE, with the approval of the Director of the State Department of General Services, and ALAMEDA COUNTY, a local agency existing under the laws of the State of California, through its duly authorized officers, hereinafter called LOCAL AGENCY, whereby it is agreed as follows:

I. PURPOSE

The purpose of this Agreement is to provide LOCAL AGENCY with fire protection services that are mutually advantageous to LOCAL AGENCY and STATE by providing unified, cooperative, integrated, and effective fire protection services to meet the responsibilities of STATE to protect natural resources and LOCAL AGENCY to protect lives and property, from forest fires, fires, and other emergencies.

II. PAYMENT FOR SERVICES

LOCAL AGENCY will pay to STATE for the furnishing of fire protection services pursuant to this agreement for the period July 1, 1990, through June 30, 1991, within the area of responsibility of LOCAL AGENCY, an amount not to exceed that set forth in each Schedule A, incorporated herein or by amendment for the services to be rendered pursuant to each such schedule for each fiscal year.

All payments to be made to STATE by LOCAL AGENCY for services provided by STATE during the period indicated above pursuant to any provision of this agreement are included within the respective Schedules A incorporated herein.

Any other funds designated by LOCAL AGENCY to be expended under the supervision of, or for the use of, a State Forest Officer for fire protection services during the term of this agreement shall be set out in Schedule C attached hereto and incorporated herein. This clause shall not limit the right of LOCAL AGENCY to make additional expenditures whether under Schedule C or otherwise.

III. ADMINISTRATION

Under the requirements of California Public Resources Code Section 4114 and other provisions of law, STATE maintains fire prevention and firefighting services including the necessary personnel, apparatus, structures, and communications as outlined in Schedule B, attached hereto and made a part hereof.

- A. DIRECTOR will select and employ a State Forest Officer who shall, under the supervision and direction of DIRECTOR or a lawful representative, have charge of the organization described in Schedules A, B, and C.
- B. LOCAL AGENCY may appoint the State Forest Officer as the County Fire Warden or Chief Fire Protection Officer pursuant to Government Code Section 24008, Public Contracts Code Section 20811, or other applicable appointing authority.
- C. The State Forest Officer may dispatch personnel and equipment listed in Schedule(s) A-4142 from the assigned station or location from time to time under guidelines established by LOCAL AGENCY and approved by STATE. Personnel and equipment listed in Schedule B, except those specifically assigned to fire protection services during the period designated "N" (Nonfire Season) on Schedule A, may be dispatched at the sole discretion of STATE.

The State Forest Officer shall exercise his best professional judgment in authorizing or making any assignments to emergencies and other responses, including assignments made in response to requests for mutual aid.

- D. Except as specifically provided herein or by separate agreement, STATE shall assume no responsibility within the area of jurisdiction of the United States government, or lands within the corporate limits of any city.
- E. The performance of or provision for any service not specified herein by either STATE or LOCAL AGENCY shall be in pursuit of the separate mission of the party performing or making provision for such service and shall not be at the expense of the other party.
- F. STATE shall not incur any obligation on the part of LOCAL AGENCY to pay for any labor, materials, supplies or services beyond the total set forth in the respective Schedules A as to the services to be rendered pursuant to each such Schedule.
- G. Nothing herein shall alter or amend or be construed to alter or amend any Collective Bargaining Agreement or Memorandum of Understanding between the State of California and its employees under the State Employer-Employee Relations Act.

IV. SERVICES BY STATE

The organization to be provided by STATE, and the estimated cost of services to be performed by said organization and all associated costs, pursuant to this agreement, set forth in Schedule(s) A, shall include the following:

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- A. All services, both year-long and seasonal, including: STATE equipment, personnel and buildings; the operation and maintenance of equipment provided by LOCAL AGENCY; supervision of volunteer or other local fire forces and all associated expenses borne directly by STATE to be reimbursed by LOCAL AGENCY.
 - B. Fire protection activities or services over and above those normally provided for STATE'S mission during the period designated "N", if any, on the attached Schedule(s) A will be provided at local agency expense during the nonfire season, a specific calendar period declared by the Director of Forestry and Fire Protection. STATE will provide at its own expense, essentially the same level of service during the remainder of the year.
 - C. In the case of services provided under Public Resources Code Section 4144, if any, a separate Schedule A, marked "A-4144" shall be used to show the cost apportionment in compliance with Section 4144 and the California Administrative Code, Title 14, Section 1260.

V. CHANGES IN LEVEL OF SERVICE OR LOCAL AGENCY APPROPRIATION

- A. If LOCAL AGENCY requests a reduction in the number of personnel, by Civil Service Classification, assigned to the organization provided for in Schedule(s) A, excluding Schedule A-4144, LOCAL AGENCY shall be responsible for any relocation costs of State employees involved except:
 - 1. A reduction in personnel requested or implemented due solely to an increase in the cost of salaries or expenses of STATE, or
 - 2. Requests which will result in the reduction of personnel during the contract period identified in Section II, above, as follows:
 - a. The first employee in any Civil Service Classification, and
 - b. Additional employees in the same Civil Service Classification up to a total, including the one employee in (a), above, representing '0% (rounded to the nearest whole number) or less of all employees in such classification.
 - c. Reductions in personnel which occur at or after the end of the contract period following the giving by LOCAL AGENCY of ninety (90) days advance notice of such reduction.
- B. Claims for relocation expenses shall be at actual cost or STATE'S best estimate if claims are required in advance of actual costs.
- C. To minimize the cost and disruptions associated with any reductions from immediately preceding budgeted levels of staffing, LOCAL AGENCY will use all good faith to give STATE at least ninety (90) days prior written notice of plans to reduce Schedule A personnel in any Civil Service Classification.

During such period of notice of reduction, STATE and LOCAL AGENCY will cooperate in taking advantage of vacancies which may otherwise occur, within acceptable limits, considering the level of service to be maintained, to minimize relocation and related expenses.

- D. In the event an increase from any cause, in the cost of salaries or expenses should occur or become known, STATE shall, at the first available opportunity, advise LOCAL AGENCY if the increase in any category cannot be absorbed within the total appropriation or the total of any individual Schedule A without reducing services below the levels indicated in such Schedule(s) A. Within twenty (20) days of such advice, LOCAL AGENCY shall designate the adjustments in Schedule A which are to be made in order to bring service costs to or below the levels indicated in the effected Schedule(s) A. In the absence of such designation, STATE shall, in the exercise of its best professional judgement, reduce the services provided for in Schedule(s) A to permit continued operation within the limit of funds appropriated by LOCAL AGENCY and available for expenditure to support the organization established under each Schedule A.
- E. In the event LOCAL AGENCY, during the term hereof desires to change its appropriation from the level stated herein, it may so advise STATE and, upon STATE'S concurrence, STATE shall, as soon as is practicable thereafter, adjust the level of services to accommodate the change requested by LOCAL AGENCY. STATE'S concurrence shall not be unreasonably withheld. An amendment to this Agreement shall be promptly processed to reflect such change(s).

VI. PAYMENT FOR SERVICES

- A. STATE shall make claim for the cost of fire protection services on a quarterly basis as follows:
1. For actual services rendered by STATE during the period of July 1 through September 30, by a claim filed with LOCAL AGENCY on or after December 10;
 2. For actual services rendered by STATE during the period October 1 through December 31, by a claim filed with LOCAL AGENCY on or after the following February 1;
 3. For actual services rendered by STATE during the period January 1 through March 31, by a claim filed with LOCAL AGENCY on or after April 15;
 4. For the estimated cost of services during the period April 1 through June 30, by a claim filed in advance with LOCAL AGENCY on or after March 1; and
 5. A final statement will be filed with LOCAL AGENCY within ninety (90) days of the close of the fiscal year, reconciling the payments made by LOCAL AGENCY with the cost of the actual services rendered by

STATE and including therein any other costs as provided herein, giving credit for all payments made by LOCAL AGENCY and claiming the balance due to STATE, if any, or refunding to LOCAL AGENCY the amount of any overpayment.

6. All payments by LOCAL AGENCY shall be made within thirty (30) days of receipt of invoice from STATE, or within 30 days after the filing dates specified above, whichever is later.
- B. The total of all claims presented by STATE for services provided under the terms of this agreement shall not exceed the sum(s) set forth in the attached Schedule(s) A or as said sum(s) may be changed by amendment hereto.
- C. Claims will include the actual cost, or estimated costs as provided herein, of salaries and employee benefits, for those personnel employed in accordance with Schedule(s) A. When "contractual rates" are indicated, the rate shall be based on an average salary plus all benefits. "Contractual rates" means an all-inclusive rate covering total costs, per specified position, to STATE for providing 24-hour fire protection coverage during the 'period covered' established in Schedule A.
- D. Except when otherwise specifically agreed to in writing by the STATE and the LOCAL AGENCY, services provided and obligations incurred during the period of "holding-over" provided for in a previous agreement, or otherwise prior to the execution of this agreement, but after the beginning of the fiscal year to which this agreement applies, are accepted as services and obligations under the terms of this agreement.
- E. Upon reasonable notice from LOCAL AGENCY, records and books of STATE relating to this agreement shall be made available for audit by LOCAL AGENCY at the office of the DIRECTOR.
- P. All claims for payment to STATE from LOCAL AGENCY funds shall be filed with LOCAL AGENCY in the manner prescribed by LOCAL AGENCY.

VII. HOLDING-OVER

It is hereby understood and agreed that unless STATE, before the expiration of this agreement, receives a written notice from LOCAL AGENCY giving STATE at least ninety (90) days notice of LOCAL AGENCY's decision to terminate or not renew this agreement, then this agreement shall be automatically extended at the same level of service, at the level of expense applicable during the "hold-over" period, and otherwise on the same terms and conditions herein specified, so far as applicable, until the date on which a renewal agreement is fully executed, or the effective date of termination of this "hold-over" agreement following STATE'S receipt of ninety (90) days prior written termination notice, whichever is sooner. The cost of services provided by STATE during any "hold-over" period in the following fiscal year shall be at the level of expense determined by STATE to be applicable during that following fiscal year and be paid by LOCAL AGENCY from funds other than those included in the attached Schedule(s) A.

VIII. INDEMNIFICATION

- A. LOCAL AGENCY, to the extent permitted by law, agrees to indemnify, defend, and hold harmless STATE, its officers, agents and employees from and against any and all claims and losses whatsoever accruing or resulting to any and all persons, firms, or corporations furnishing or supplying work, services, materials, or supplies in connection with activities pursuant to any provision of Schedules A and C attached hereto.
- B. LOCAL AGENCY, to the extent permitted by law, further agrees to indemnify, defend, and hold harmless STATE, its officers, agents, and employees from any and all claims and losses accruing or resulting to any person, firm, or corporation for damage, injury, or death arising out of or connected with STATE'S performance, failure to perform, or omission of, any act, duty, or work contemplated within the scope of schedules A and C of this agreement, except those arising from the sole negligence or willful misconduct attributable to STATE or from acts not within the scope of duties to be performed pursuant to this agreement.
- C. STATE, to the extent permitted by law, agrees to indemnify, defend, and hold harmless LOCAL AGENCY, its officers, agents, and employees from and against any and all claims and losses whatsoever accruing or resulting to any and all persons, firms, or corporations furnishing or supplying work, services, materials, or supplies in connection with activities confined to STATE'S organization outlined in Schedule B.
- D. STATE, to the extent permitted by law, further agrees to indemnify, defend, and hold harmless LOCAL AGENCY, its officers, agents, and employees from and against any and all claims and losses accruing or resulting to any and all persons, firms, or corporations for damage, injury or death arising out of or connected with STATE'S performance, failure to perform, or omission of any act, duty, or work contemplated as STATE'S responsibility under Schedule B above.
- E. LOCAL AGENCY agrees to provide a certificate of self-insurance in a form acceptable to STATE if LOCAL AGENCY elects to be self-insured, in whole or in part, for any or all losses. Said certificate must be executed by a duly authorized officer of LOCAL AGENCY, and a true copy attached hereto as a part of this agreement. If commercially insured, a certificate of such coverage, executed by the insurer (or authorized representative), will be provided and attached hereto. Such commercial insurance will provide general liability of at least \$500,000 combined single limit per occurrence. Neither a certificate of self-insurance nor evidence of commercial insurance shall be required for DISPATCH-ONLY agreements.

Said policy shall be provided at no cost to the STATE, and shall include the following provisions:

1. The State of California, Department of Forestry and Fire Protection and its officers, servants, and employees are included as additional insureds;

2. The insurer will not cancel said policy without providing thirty (30) days prior written notice to the STATE at the following address:

California Department of Forestry
and Fire Protection
Attention: Cooperative Fire Protection
P.O. Box 944246
Sacramento, CA 94244-2460

- F. STATE is "self-insured" for all its activities contemplated under this agreement.

IX. WORKERS' COMPENSATION

- A. Workers' Compensation and related benefits for those persons whose use or employment is contemplated herein will be provided in the manner prescribed by California Labor Code Section 3700. Such benefits will be included for regular employees and persons temporarily employed and commonly known as volunteers (whether regularly registered, summoned pursuant to Public Resources Code Section 4153, or working without compensation), paid-call firefighters or others temporarily employed to perform any emergency work or emergency service including, but not limited to, fire prevention and suppression. STATE is self-insured for Workers' Compensation benefits for all its regular employees and for temporary employees enumerated above while preparing for or performing any required service in the pursuit of STATE'S primary mission.
- B. The State Forest Officer administering the organization provided for in this agreement shall not use, dispatch or direct any such temporarily employed persons on responses or training which are deemed to be the responsibility of LOCAL AGENCY unless and until said officer is provided evidence that each such person is insured for Workers' Compensation benefits pursuant to Labor Code Section 3700, at no cost to STATE. If LOCAL AGENCY is self-insured, evidence of Workers' Compensation coverage will be provided in the same manner as required in Section VIII, Paragraph E. If commercially insured, a certificate of such coverage executed by the insurer will be provided and attached hereto. In the event STATE is held liable, in whole or in part, for the payment of any Workers' Compensation claim or award arising from the injury or death of such temporarily employed person, LOCAL AGENCY agrees to indemnify STATE for the full amount of such liability.

X. SUPPRESSION COST RECOVERY

As provided in Health and Safety Code (H&SC) Section 13009, STATE may bring an action for collection of suppression costs of any fire occurring on forest, range or nonresidential grasslands during the term of this agreement. When using LOCAL AGENCY equipment and personnel under the terms of this agreement, STATE may, on request of LOCAL AGENCY, bring such an action for collection of costs incurred by LOCAL AGENCY in which case LOCAL AGENCY appoints and designates STATE as its

agent in said collection proceedings. In the event of recovery, STATE will apportion to LOCAL AGENCY its pro-rata proportion of recovery, less the reasonable pro-rated costs, including legal fees.

In all such instances, STATE shall give timely notice to the officer designated by LOCAL AGENCY, of the possible application of H&SC Section 13009.

XI. MUTUAL AID

When rendering mutual aid or assistance as authorized in H&SC Section 13050 and 13054, STATE may, on request of LOCAL AGENCY, demand payment of charges and seek reimbursement of LOCAL AGENCY costs for personnel as funded herein, under authority given by H&SC Section 13051 and 13054. STATE, in seeking said reimbursement pursuant to such request of LOCAL AGENCY, will represent LOCAL AGENCY in following the procedures set forth in H&SC Section 13052. Any recovery of LOCAL AGENCY costs, less expenses, will be paid or credited to LOCAL AGENCY, as elected by LOCAL AGENCY.

In all such instances, STATE shall give timely notice to the officer designated by LOCAL AGENCY of the possible application of H&SC Section 13051 and 13054.

XII. COSTS OF OPERATING AND MAINTAINING EQUIPMENT AND PROPERTY

The costs of maintaining, operating, and replacing any and all property and equipment, real or personal, furnished by the parties hereto for fire protection purposes shall be borne by the party owning or furnishing such property or equipment unless otherwise provided for herein or by separate written agreement of the parties hereto.

XIII. PROPERTY ACCOUNTING

All personal property provided by LOCAL AGENCY and by STATE for the purpose of providing fire protection services under the terms of this agreement shall be marked and accounted for by the State Forest Officer in such a manner as to conform to the regulations, if any, established by the parties for the segregation, care, and use of the respective property of each.

XIV. VEHICLES

- A. STATE-owned vehicles (registered in the name of STATE), identified and listed in Schedule(s) A as part of the fire protection service provided in Schedule(s) A, hereunder, shall be operated and maintained in accordance with policies of STATE at rates listed in Schedule(s) A for the particular fiscal year.
- B. LOCAL AGENCY-owned vehicles (registered in the name of LOCAL AGENCY) identified in Schedule A, shall be used and operated according to policies established by LOCAL AGENCY and furnished to the State Forest Officer, and maintained in accordance with policies of STATE at actual cost or at rates listed in Schedule(s) A for the particular fiscal year.

C. In the case of LOCAL AGENCY-owned vehicles provided by LOCAL AGENCY, for performance as contemplated hereunder, but not included in Schedule A:

1. STATE shall conform to policies of LOCAL AGENCY in operation, use, care and maintenance of said vehicles.
2. LOCAL AGENCY shall assume full responsibility for all costs associated with the acquisition, operation, use, care, maintenance and replacement of said vehicles.

D. Except where LOCAL AGENCY would have no duty to indemnify STATE under Section VIII hereof, for all LOCAL AGENCY-owned vehicles operated or used by employees of STATE, under the terms of this agreement, LOCAL AGENCY assumes full responsibility for all liabilities associated therewith in accordance with California Vehicle Code Sections 17000, 17001 et seq. Such STATE employees operating LOCAL AGENCY-owned vehicles will be deemed employees of LOCAL AGENCY as defined in Vehicle Code Section 17000.

Except where STATE would have no duty to indemnify LOCAL AGENCY under Section VIII hereof, a LOCAL AGENCY employee, under the supervision of the State Forest Officer, operating a STATE-owned motor vehicle as a part of his duties and in connection with fire protection service will be deemed an employee of STATE as defined in Vehicle Code Section 17000 for acts or omissions in the use of such vehicles.

XV. NOTICES

Notices which may be required or permitted under the terms of this agreement shall be considered to have been given upon receipt from the U. S. Postal Service of a "return receipt" showing acceptance by a representative of the "receiving" party of the notice which was posted "Certified - Return Receipt Requested." Addresses for any such notices shall be:

For STATE:

California Department of Forestry
and Fire Protection
Attention: Cooperative Fire Protection
P.O. Box 944246
Sacramento, CA 94244-2460

And to the State Forest Officer:

RICHARD J. CLANTON
Calif. Dept. of Forestry and Fire Protection
15670 Monterey Street South
Morgan Hill, CA 95037

For LOCAL AGENCY:

ALAMEDA COUNTY
Office of Emergency Services
2000 150th Avenue
San Leandro, CA 94578-1369

Attn: Mr. Nguu V. Tran

Any part of all of the address for notices may be changed at any time by the party making the change by sending or giving advice of such change to the other party at the appropriate address for notices.

XVI. ENTIRE CONTRACT

In the event STATE determines that it will no longer continue providing the fire protection and emergency services described in this agreement, then STATE shall provide written notice to LOCAL AGENCY. Such notice shall specify a termination date which shall be no sooner than twelve (12) months and no later than twenty-four (24) months following giving of notice. This date may be modified by mutual written consent of STATE and LOCAL AGENCY. The only exception to this notice requirement shall be for violation of Section VI.A.6. requiring LOCAL AGENCY payment for services within a specified period. Violation of this provision allows STATE to cancel this agreement no sooner than ninety (90) days following giving of such notice. STATE shall make every reasonable effort to affect an orderly transition to LOCAL AGENCY provision of fire protection and emergency services.

LOCAL AGENCY may terminate this agreement ninety (90) days after giving STATE written notice.

Any provision herein contained may be amended or modified upon mutual written consent of the parties hereto.

If contract is over \$10,000, contracting parties shall, in accordance with Government Code §10532, be subject to examination and audit of the State Auditor General for a period of 3 years after final payment under the contract. Examination and audit shall be confined to those matters connected with performance of the contract including, but not limited to, cost of administering contract.

This agreement contains the whole contract between the parties. It cancels and supersedes any previous agreement for the same or similar services.

IN WITNESS WHEREOF, the duly authorized officials of the parties hereto have, in their representative capacities, set their hands as of the date first hereinabove written.

APPROVED, AND RECOMMENDED FOR EXECUTION BY THE STATE:

REGION 1 , DEPARTMENT OF FORESTRY
and FIRE PROTECTION

By

Signature

William T. Imboden

Printed Name

Chief, Region I

Title

DEPARTMENT OF GENERAL SERVICES

By

LOCAL AGENCY

By

Signature

Printed Name

Title

STATE OF CALIFORNIA
DEPARTMENT OF FORESTRY
AND FIRE PROTECTION

By

Signature

Printed Name

Title

SELF-INSURANCE CERTIFICATION BY LOCAL AGENCY
FOR
TORT LIABILITY

This is to certify that LOCAL AGENCY has elected to be self-insured under the self-insurance provision provided in Section VIII, Paragraph E.

LOCAL AGENCY
By

Signature

Printed Name

Title

SELF-INSURANCE CERTIFICATION BY LOCAL AGENCY
FOR
WORKERS' COMPENSATION BENEFITS

This is to certify that LOCAL AGENCY has elected to be self-insured for Workers Compensation benefits which comply with Labor Code Section 3700 as provided in Section IX, Paragraph B.

LOCAL AGENCY
By

Signature

Printed Name

Title

SELF-INSURANCE CERTIFICATION BY LOCAL AGENCY
FOR
LOCAL AGENCY-OWNED VEHICLES

This is to certify that LOCAL AGENCY has elected to be self-insured for local agency-owned vehicle, under the self-insurance provision provided in Section VIII, Paragraph E.

LOCAL AGENCY
By

Signature

Printed Name

Title

SCHEDULE A - 4142
INDEX 1600 PCA - 17900

THIS IS SCHEDULE A - 4142 OF THE COOPERATIVE AGREEMENT, DATED JULY 1, 1990
BETWEEN THE CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION
AND THE COUNTY OF ALAMEDA

PERSONAL SERVICES

	No.	Class.	Period	Person Mos.	Rate	Total Salary	Benefits	Total
Fire Control & Emergency Service								
							(34,538)	
Sunol	0	FC A	7/1-6/30	0	\$3,355	\$0	\$0	\$0
	3	Engineer	7/1-6/30	36	\$2,914	\$104,904	\$36,979	\$141,883
	3	FF II	7/1-6/30	36	\$2,554	\$91,944	\$32,410	\$124,354
Command/Support								
							(22,368)	
Dispatch Clerk	0.25		1/1-3/30	3	\$2,236	\$6,708	\$2,297	\$9,005
Overtime								
							(16,432)	
Planned	0	FC A	7/1-6/30	0	\$441	\$0	\$0	\$0
	3	Engineer	7/1-6/30	36	\$395	\$13,860	\$2,176	\$16,036
	3	FF II	7/1-6/30	36	\$338	\$12,168	\$1,910	\$14,078
Unplanned						\$12,500		\$12,500
Supplemental								
Battalion Chief	0.50	SFP I	11/1-4/30	6	\$641	\$3,846	\$604	\$4,450

Subtotal Personal Services: \$327,307

OPERATING EXPENSE

Telephone								\$1,000
Training								\$2,500

Utilities	No.	Period	Mos.	Rate	Total	
Electric Gas		7/1-6/30	12	\$100	\$1,200	
Water/Disposal		7/1-6/30	12	\$50	\$600	
Telephone		7/1-6/30	12	\$50	\$600	
Subtotal Utilities:						\$2,400

Personal Care

Uniform Allowance	6	Full time	72	\$42	\$3,024	
al Exams	0.25	Full time	3	\$33	\$99	
	3			\$150	\$450	
Subtotal Personal Care:						\$3,573

Vehicles	No.	Type	Months	Rate	Total
County Owned	1	Engine (3-B-2)	12	\$384	\$4,608
State Owned	0.50	Pickup (1-B)	6	\$0.23 /mile @ 10,000	\$2,300

Subtotal Vehicles: \$6,908

Subtotal Operating Expense: \$17,381

Subtotal Personal Services & Operating Expense: \$339,689

Administrative Charge: 11.13% \$37,607

Total PM= 75.00

Total PM= 6.25

Grand Total Schedule A \$371,495

License Number or I.D. number for Local Owned Engines on State Maintenance Contract

Category	Year Model	Type	License Number
Flat Rate	1986 INT.	3-B-2	E-096750

SCHEDULE B

This is Schedule B of Cooperative Agreement, dated July 1, 1990, by and between the Department of Forestry and Fire Protection of the State of California and ALAMEDA COUNTY, a LOCAL AGENCY.

ADMINISTRATION - REGULAR

- 1 - Officer in Charge
- 1 - Operations Officer
- 1 - Administrative Officer
- 6 - Battalion Chiefs
- 1 - Forestry Equipment Manager
- 3 - Emergency Command Center Operators (Fire Captain)
- 1 - Secretary
- 2 - Clerks

CREWS

Alma
Almaden
Stevens Creek
Morgan Hill
Coyote
Smith Creek
Sweetwater
Pacheco
Del Puerto
Castle Rock
Sunol
Sunshine

LOOKOUTS

Copernicus
Mt. Oso

HELITACK

Alma

509
market value and other pertinent factors. Upon such determination, the State shall immediately so notify the LOCAL AGENCY and the LOCAL AGENCY shall have the option of replacing said vehicle or STATE shall discontinue the particular service required as a result of its previous existence.

3. For all vehicles listed under the heading "Actual Cost," the STATE shall:
 - a. Operate, maintain and repair said vehicles at the STATE'S actual cost.
4. LOCAL/AGENCY vehicles to be maintained pursuant to this section are listed below by category (Flat Rate, Mileage Rate, or Actual Cost) and are described by year model, "Rate Letter" type, and license number.

<u>Category</u>	<u>Year Model</u>	<u>Type</u>	<u>License Number</u>
Flat Rate	1986	3-B-2	E096750

ATTACHMENT 1

Attachment 1 is made a part of this agreement between the State of California and
ALAMEDA COUNTY dated July 1, 1990.

Section XIV. Vehicles, B, is expanded to include the following description of maintenance responsibilities and procedures for LOCAL AGENCY owned vehicles which are listed in Schedule A.

B.1. For all vehicles for which a monthly "Flat Rate" is shown, (this category excludes all surveyed Department of Forestry and Fire Protection vehicles, vehicles obtained through Federal surplus, fire apparatus built on commercial chassis over 15 years old and fire apparatus built on custom chassis over twenty (20) years old). (Age is based on chassis production year.)

State shall:

- a. Provide fuel, oil, lubrication, batteries, tires and tubes.
 - b. Repair, exchange or replace, when necessary, accessory motors, hoses, pumps, spotlights, sirens, fire extinguishers and all other accessories affixed to or supplied when said vehicles were accepted by the State for operation under Schedule A; excepting equipment or accessories not common to the use of the STATE and radio installations originally provided by the LOCAL AGENCY. All such equipment provided and installed by the STATE shall become the property of the LOCAL AGENCY and the replaced equipment removed shall become the property of the STATE.
 - c. Make such reasonable repairs to said vehicles (but not including painting) as may be necessary to keep the vehicles in operating condition; provided, however, that the STATE may cease to make further repairs on any vehicles when the STATE determines that the repair costs during the period of this agreement shall exceed \$10,000 for any one occurrence, or will exceed the market value of the vehicle. In the event the STATE determines that a vehicle is not fit for further use because of obsolescence, deterioration or damage, the STATE shall not be required to repair the vehicle or maintain it in use. Upon such determination, the STATE shall immediately so advise the LOCAL AGENCY, and the LOCAL AGENCY shall have the option of replacing said vehicle or STATE shall discontinue the particular service required as a result of its previous existence.
2. For all vehicles for which a "Mileage Rate" is shown, (passenger and service type vehicles), STATE shall:
- a. Provide fuel, oil, lubrication, batteries and tires.
 - b. Make such reasonable repairs to said vehicles as may be necessary to keep the vehicles in operating condition; provided, however, that the STATE may cease to make further repairs on any vehicles when the potential repair costs are not reasonable considering the vehicle age,

ADMINISTRATOR'S
OFFICE
COUNTY OF ALAMEDA

SEP 18 10 34 AM '90

September 11, 1990

Dan Reagin
COUNTY ADMINISTRATOR
1221 Cal. Street, Room 555
Oakland, CA 94612

Re: Fire Protection on Crow Canyon Road

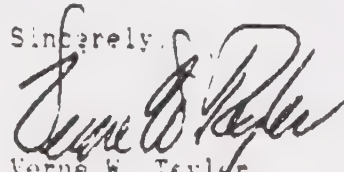
Dear Mr. Reagin:

Attached are a group of petitions of residents who live on Crow Canyon Road which is provided fire protection through the Department of Forestry.

As you can tell from the petition, we are not receiving reasonable and acceptable emergency fire protection. I trust you can appreciate the concern and trust a reasonable alternative can be provided; otherwise we intend to pursue a reasonable remedy.

You are welcome to telephone if I can provide additional information.

Sincerely,



Verne W. Taylor
9990 Crow Canyon Road
Castro Valley, CA 94552
(415) 538-8117

SEP 18 10 34 AM '90

PETITION

PETITION

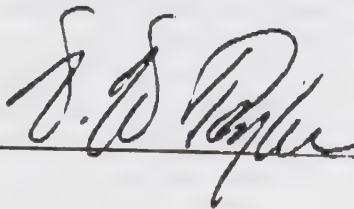
PETITION

I, VERNE TEYLER, am a homeowner/resident living at 9990 Crow Canyon Road, Castro Valley, California. The County of Alameda is contracting with the Department of Forestry in Sunol, California to provide emergency fire response which is sorely inadequate. Documented response time from Sunol has been as long as fifty minutes and responding units must pass other non-contracted district fire response units in San Ramon at the northern end of the canyon or in Castro Valley in the southern end of the canyon.

The County has contracted with the Castro Valley Fire Protection District to provide fire protection service for approximately one-half Crow Canyon Road nearest Castro Valley. This contract is highly discriminatory against the remaining County residents on Crow Canyon Road, placing these residents at serious risk because of inadequate fire protection.

I petition the County of Alameda to provide parity to all Alameda County Crow Canyon residents by the County extending the existing contract with the Castro Valley Fire Protection District to cover the entire length of Crow Canyon Road to the Alameda/ Contra Costa County line; or, equally acceptable to contract with the San Ramon Fire District to provide emergency response to the Crow Canyon portion not currently under contract with the Castro Valley Fire Protection District.

Signed: _____



Date: 9-10-90



COUNTY ADMINISTRATOR

STEVEN C. SZALAY
COUNTY ADMINISTRATOR

September 28, 1990

SUSAN S. MURANISHI
ASSISTANT COUNTY ADMINISTRATOR

Mr. Vern Teyler
9990 Crow Canyon Road
Castro Valley, CA 94552

Dear Mr. Teyler:

Subject: Crow Canyon Road Fire Protection

This is a follow-up letter to the telephone call you received from Mr. Regan of my office last week concerning a group of petitions submitted by yourself and 14 other residents of Crow Canyon Road in Castro Valley. The petitions submitted requested that "the County provide parity to all Alameda County Crow Canyon Road residents by the County extending the existing contract with the Castro Valley Fire Protection District to cover the entire length of Crow Canyon Road to the Alameda/Contra Costa County line; or equally acceptable to contract with the San Ramon Fire District to provide emergency response to the Crow Canyon portion not currently under contract with the Castro Valley Fire Protection District."

As indicated in your petition, fire protection services for the portion of Crow Canyon Road where you reside are provided by contract with the California Department of Forestry (CDF) out of their Sunol station. The response times as indicated in your petition are accurate. Castro Valley Fire District will respond if requested by CDF (as part of a Mutual Aid agreement), but they are not responsible for providing on-going fire protection services in the area.

As Mr. Regan stated to you, the County has begun an extensive fire organization study which will provide a thorough review of all County fire districts and contracted fire services for the unincorporated areas of the County. As part of the study, response times of each of the districts and contracted services will be reviewed to determine if changes should be made in the way the County provides fire services. The study, with appropriate recommendations, is expected to be completed in February of 1991. As part of the study, the situation you have described will be specifically reviewed.

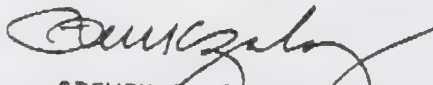
In addition, my staff is reviewing with both Castro Valley Fire District and CDF any alternatives which may help to address your concerns. Staff from my office will keep you informed as to the results of this review. Also, I am forwarding copies of your letter and a sample of the petitions to the Board of Supervisors and the fire consultant for their information.

MR. VERN TEYLER
SEPTEMBER 28, 1990
PAGE 2

Your concerns regarding the safety of your family and property are shared by the County and the Board of Supervisors. Our concern is not only for the safety of you and your family, but for all county residents. It is this concern which has prompted the County to undertake the Fire organization study mentioned above.

Thank you for your inquiry. If you have questions regarding the pending fire service organization study, please contact Mr. Regan of my office at 272-6984.

Very truly Yours,


STEVEN C. SZALAY
COUNTY ADMINISTRATOR

SCS:DGR:dr/ngr
4042c

cc: Each Member, Board of Supervisors
Crystal Hishida, LAFCO staff, CAO's Office
Dan Regan, Administrative Analyst, CAO's Office
Chief Robert Waberski, Castro Valley Fire Protection District
Mike Morgan, Battalion Chief, California Department of Forestry
Robert Burns, Fire Loss Management Systems, 1667 Springer Rd.,
Mountain View, CA. 94040
Other Petitioners, w/o attachments



COUNTY ADMINISTRATOR

STEVEN C. SZALAY
COUNTY ADMINISTRATOR

October 12, 1990

SUSAN S. MURANISHI
ASSISTANT COUNTY ADMINISTRATOR

Mr. Vern Teyler
9990 Crow Canyon Road
Castro Valley, CA. 94552

Dear Mr. Teyler:

Subject: Crow Canyon Road Fire Protection

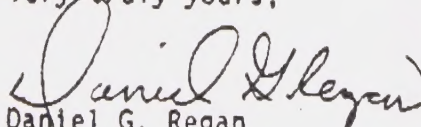
This is to provide you with additional information regarding the issue of fire protection in the Crow Canyon Road area.

I did receive the additional petitions you sent to me and added them to those previously submitted. I have also received additional information from Castro Valley Fire District regarding the impact on their operations if changes were to be made in the existing fire district boundaries. This information will be provided to the consultant conducting the fire organizational study and will be reviewed as part of the study.

The Castro Valley Fire District has agreed to respond to any calls within the California Department of Forestry's contracted areas west of the Pleasanton Ridge line on an interim basis pending the completion of the fire service organizational study. This will help to address the concerns raised by you and the other residents of Crow Canyon Road, and the residents of the Palomares Canyon area, on a short term basis. Once the fire study has been completed, the County will be better able to determine any long term changes that may be necessary for fire protection in these areas.

If you have any questions, please contact me at 272-6984.

Very truly yours,


Daniel G. Regan
Administrative Analyst

DGR:dr:nr
4226c

cc: Each Member, Board of Supervisors
Steve Szalay, County Administrator
Crystal Hishida, LAFCO staff, CAO's Office
Chief Robert Waberski, Castro Valley Fire Protection District
Mike Morgan, Battalion Chief, California Department of Forestry
Bob Burns, Fire Loss Management Systems
Other Petitioners

RETURN TO: 195L
109 Moses Hall #2370

LOAN PERIOD	1	2	3
Home Use			
	4	5	6

ALL BOOKS MAY BE RECALLED AFTER 7 DAYS.

DUE AS STAMPED BELOW.

SENT ON ILL		
MAY 05 2004		
U. C. BERKELEY		

ILS: DD99
2M 3-02

UNIVERSITY OF CALIFORNIA, BERKELEY
Berkeley, California 94720-6000

U.C. BERKELEY LIBRARIES



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